THE LANCET
Public Health

Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Supplementary Appendix

Sections

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1.Methods

1.1. Data, detailed information

Contextual independent variable: We use the Stringency index created by OxGCRT as our key objective measure of government response stringency during the pandemic, considering 8 different policies. The original 9-item index reflects the degree and reach of various governmental policy responses to the pandemic, including (1) school closures, (2) workplace closures, (3) the cancellation of public events, (4) restrictions on gatherings, (5) public transportation closures, (6) stay at home requirements, (7) restrictions on domestic travel, (8) restrictions on international travel, and (9) public information campaigns. We adapted the index excluding the public information campaigns component as it had practically no variance in the period of analysis and is not expected to affect mental health. The OxGCRT has collected data on these and other relevant dimensions from more than 180 countries since January 2020. We use daily OxGCRT data from the same 15 countries for which we have mental health data. While the index is typically scored from 0 to 100, we rescaled it to range between 0-1 to facilitate coefficient interpretation in the models.

Observance of government prescribed physical distancing: In each survey, respondents were asked 7 questions about the extent to which they had maintained physical distance from others due the government's prescribed COVID-19 policies. The exact question was: "Thinking about the last 7 days, how often have you taken the following measures to protect yourself or others from coronavirus (COVID-19)? As a reminder, please exclude any measures that you have already taken for reasons other than coronavirus (COVID-19)": i) avoided going out in general; ii) avoided going to shops; iii) avoided having guests to your home; iv) avoided small social gatherings (not more than two people); v) avoided medium-sized social gatherings (between 3 and 10 people); iv) avoided large social gatherings (more than 10 people); and (vii) avoided crowded areas. Responses were provided on a 5-point scale with the following options: 1=not at all, 2=rarely, 3=sometimes, 4=frequently and 5=always.

1.2. Analytic strategy detailed information

In order to evaluate the temporal association between mental health and policy stringency, we first used pooled cross sections and linear regression models with dummy variables representing countries (fixed-effects) to control for all variation related to time-invariant country characteristics. With this approach, we focused the analysis on changes in the outcomes of interest over time at the country level and left individual level characteristics to be controlled for by individual-level covariates. To account for the dependency across individual level observations in the same country and over time, we used clustered standard errors at the country level.

These models are adequate for estimating associations with contextual and individual variables. However, when dealing with individual level predictors (particularly the mediators of self-reported physical distancing and evaluation of how the government is handling the pandemic), this approach has some limitations. As these variables are endogenous, there may be unobserved characteristics simultaneously affecting the independent and dependent variables. For instance, personality traits and individual differences in life circumstances may affect psychological distress and government evaluation. If these variables are not accounted for, the estimated coefficients could be biased in an unknown magnitude and direction. Typically, individual fixed-effects models can be used to control for all possible time-invariant confounds when longitudinal data is available. In such a case, a set of dummy variables representing each respondent would be included in the model and the analysis focused exclusively on the intra-individual variability over time. But we cannot do this. The repeated cross-sectional nature of our data with different respondents in each wave makes it infeasible to use individual fixed-effects. The pseudo-panel approach, however, capitalizes on the benefits of individual fixed-effects models.[1]

In this second analytical strategy, data are aggregated over waves and demographic characteristics that do not change over time (e.g., country of residence, sex, or birth year - in our case we use age, as a short period of time is observed, rendering changes in age irrelevant). Each cell (also called a cohort) is defined by

combinations of these characteristics (e.g., women below 30-years old living in the UK), and then treated as a single individual with repeated observations over time.

As such, pseudo-panels were constructed averaging data into cohorts defined by 10-year age ranges, sex and country. In this newly generated dataset, each cohort was treated as an individual (e.g., females between 20 and 30 years old, living in the United Kingdom), with repeated measures per fortnightly wave. Linear regression models were then estimated with cohort fixed-effects (i.e., dummy variables representing the cohorts) in addition to the country-fixed effects. The pseudo-panel approach has three main advantages: i) it eliminates cross-sectional variance within country-wave by averaging individual values per cell, leaving only variance over time to be evaluated; ii) with the inclusion of fixed-effects for each cohort, all time-invariant unobserved characteristics within the cell are controlled for, rather than only the individual-level covariates added to the model when using the pooled cross sections data; and iii) it reduces measurement error (including common method variance) by averaging individual responses.

Assuming that the profile of respondents in a given cohort, on average, does not change over the waves in terms of unobserved characteristics, this approach allows the use of the aforementioned individual fixed-effects models for the cohorts. Thus, we can control for time-invariant characteristics and eliminate any potential omitted variable bias associated with them.

One important shortcoming, however, is the significant reduction in sample size. Here, our sample drops from thousands of observations per country to a handful. Notably though, the loss of power is at least partially compensated for by the reduction in error variance and in variance between cohorts explained by cohort fixed effects.

While not affected by omitted variable bias due to time-invariant variables, the estimates from pseudo-panels are affected by two other types of error: a) sampling error (which attenuates the estimated coefficients) and b) aggregation bias (which may increase or reduce the estimates).[2,3]

Sampling error usually affects only standard errors of estimates but would not generate bias. Pseudo-panels are a specific case in which sampling error causes bias in coefficient estimators. In true longitudinal data - with repeated measures of the same respondent - fixed effects models (or models with mean-centering around individual averages) are used to control for time-invariant covariates. On the other hand, in pseudo-panels, in each wave, we have different random samples for each cohort, and while the expected values of cohort samples are the cohort populational means, there is error variance due to sampling in the cohort sample means. This sampling variance implies an error in mean-centering cohort variables in the fixed effects model. The extent of the bias is proportional to the ratio of variance between cohort means and (variance between cohort means + sampling error variance of cohort means). This bias always leads to attenuation of the estimated coefficients (similarly to random and independent measurement error).

The larger the variance between cohort means and the larger the sample size within cohorts (leading to smaller sampling error variance of cohorts means), the smaller the bias. However, aggregation bias (due to possible differences in the association between independent and dependent variables within groups and between groups), may lead to a downward or upward bias. It is not possible to know, in advance, the direction of the combined effect of the sampling error bias and aggregation bias, but it is possible to estimate its potential magnitude. The total bias is a function of cohort size, variance between and within cohorts, and serial autocorrelation of predictors. With an adequate sample size per cohort and enough between-cohort variation in the independent variables, the bias of the estimated coefficients may be negligible.

Our pseudo-panels consider country, 10-year age brackets, country, and sex because these variables are time-invariant in the period of analysis and associated with our mediators of interest. Khan (2021) suggests CAWAR (Cell size and Across-to-Within Autocorrelation-adjusted Ratio) as a metric relating the extent of bias in estimated coefficients to variance between cohorts, within cohorts and sample size per cohort[3]. Due to the low level of variance across cohorts, we would need thousands of observations per cohort to reach negligible levels of bias (i.e., not more than 10% of estimated coefficients). However, we have a much lower number - around 83 observations (average n fortnightly = 14,918 divided by 15 countries and 12 within-country cohorts, with six age brackets and two categories of sex).

We nonetheless evaluate the pseudo-panel estimates given that their potential biases are of a different nature than the omitted variable bias that may plague the pooled cross-sections approach. Thus,

because the biases of our two statistical approaches are unlikely to be of similar direction and magnitude, the combination provides a useful robustness check of our findings.

Finally, it is worth noting that we have two sources of missing data in our sample. The first source stems from when questions were included in the YouGov survey. The PHQ-4, Cantril Ladder, and physical distancing items have been collected since April 27th, 2020, but questions regarding government evaluation (one possible mediator) were added a month later. Therefore, we have smaller sample sizes in models with government evaluation as a predictor or an outcome. The second source of missing data is non-response, which reached around 6% for PHQ-4, government evaluation, mental health condition, and chronic illnesses, with rare cases of missing data for household size (1·77%) and having children in the household (0·66%). In repeated cross-section models with missing values of PHQ-4 or government evaluation, multiple imputation was used based on country, fortnight, and all other demographic covariates. For pseudo-panels, missing values were imputed based on simple means of individual level data before aggregation and there were no missing data in the pseudo-panel after aggregation. Missing data in the independent variables (all categorical) were identified by a dummy variable included in the models to avoid reductions in sample size. Due to perfect collinearity between missing values of chronic illness and mental health conditions, we report only the missing coefficient of chronic illness. Another 8 observations with missing data on employment status (n=3) and wellbeing (n=7), 2 of which had missing values on both variables, were excluded from all analyses. Finally, 18 observations with missing values for observed physical distancing were excluded when we use this variable in the regressions. In order to account for non-randomness in the missing data generation process for psychological wellbeing, we perform sensitivity analyses replacing the missing data by the 1st or 3rd quartile of the variable's distribution.

1.3. STROBE checklist

The study is reported in line with the Strengthening the Reporting of Observational Studies in Epidemiology guidelines. Table S1 displays the checklist.

Table S1 – STROBE checklist

	Item No	Recommendation	Location where item is reported
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	Abstract: Methods
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	Abstract: Methods Abstract: Findings Abstract: Interpretation
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	Research in context: Evidence before this study Introduction
Objectives	3	State specific objectives, including any prespecified hypotheses	Research in context: Added value of this study Introduction
Methods			
Study design	4	Present key elements of study design early in the paper	Methods, Analytic Strategy Supplementary Material: 1.2. Analytic strategy detailed information
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	Methods, Data
Participants	6	(*a*) Give the eligibility criteria, and the sources and methods of selection of participants	Methods, Data We utilize secondary data from YouGov survey, which aimed at reaching a stratified sample of adults without exclusion criteria.
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	Methods, Data
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	Methods, Data
Bias	9	Describe any efforts to address potential sources of bias	Methods, Analytic Strategy Supplementary Material: 1.2. Analytic Strategy detailed information
Study size	10	Explain how the study size was arrived at	Methods, Data We used the sample size defined by YouGov-ICL survey.
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	Methods, Data Methods, Analytic Strategy Supplementary Material: 1.2. Analytic Strategy detailed information

Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	Methods, Analytic Strategy Supplementary Material: 1.2. Analytic Strategy detailed information
		(*b*) Describe any methods used to examine subgroups and interactions	Methods, Analytic Strategy 2.5. Heterogeneous associations between mental health and policy stringency Group comparisons: Supplementary Material Tables S2, S4, S6, S20, and S28.
		(*c*) Explain how missing data were addressed	Methods, Analytic Strategy Supplementary Material: 1.2. Analytic Strategy detailed information
		(*d*) If applicable, describe analytical methods taking account of sampling strategy	Methods, Analytic Strategy
		(*e*) Describe any sensitivity analyses	2.11. Association of stringency and mental health through reduction in future deaths Results, Figure 4 Tables S16 and S34 with quartile imputations

Results

Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	Supplementary Material: 1.2. Analytic Strategy detailed information
		(b) Give reasons for non-participation at each stage	Non-participation was mostly due to people declining to respond to the survey. We use data collected from You-Gov ICL and do not have access to specific details of non-participation.
		(c) Consider use of a flow diagram	NA
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	Supplementary Material Table S3 - Descriptive statistics table over quarters
		(b) Indicate number of participants with missing data for each variable of interest	Supplementary Material: 1.2. Analytic Strategy detailed information
Outcome data	15*	Report numbers of outcome events or summary measures	Methods, Data Supplementary Material 2.1. Descriptive statistics
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	All tables in the main text and Supplementary Material display which covariates were used. We also display 95% Confidence Intervals and p-values across all tables.
		(*b*) Report category boundaries when continuous variables were categorized	Methods, Data 2.5. Heterogeneous associations between mental health and policy stringency
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	NA
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	2.5. Heterogeneous associations between mental health and policy stringency

			Mitigator and eliminator country comparisons: 2.1 Descriptive statistics; 2.2. Trends of psychological distress and life evaluations over time for mitigator and eliminator countries Group comparisons: Supplementary Material Tables S2, S4, S6, S20, and S28.
Discussion			
Key results	18	Summarise key results with reference to study objectives	General Discussion
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	General Discussion: Limitations
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	General Discussion: Conclusions
Generalisability	21	Discuss the generalisability (external validity) of the study results	General Discussion: Limitations General Discussion: Conclusions
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	NA

*Give information separately for exposed and unexposed groups.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at www.strobe-statement.org.

2.Results

2.1. Descriptive statistics

Figures S1 and S2 represent a complementary analysis that compares similar Nordic countries and considers Sweden as mitigator and Denmark, Finland, and Norway as near-eliminators. The near-eliminator average includes three countries until late January and two thereafter, because of Finland no longer being in the YouGov data. Figure S1 displays pandemic intensity and Stringency index. Figure S2 displays selected policy indices across these country groupings.

Figure S1 – Pandemic intensity and policy stringency between April 2020-June 2021 for Nordic countries adopting mitigation and near-elimination strategies

A – Pandemic intensity
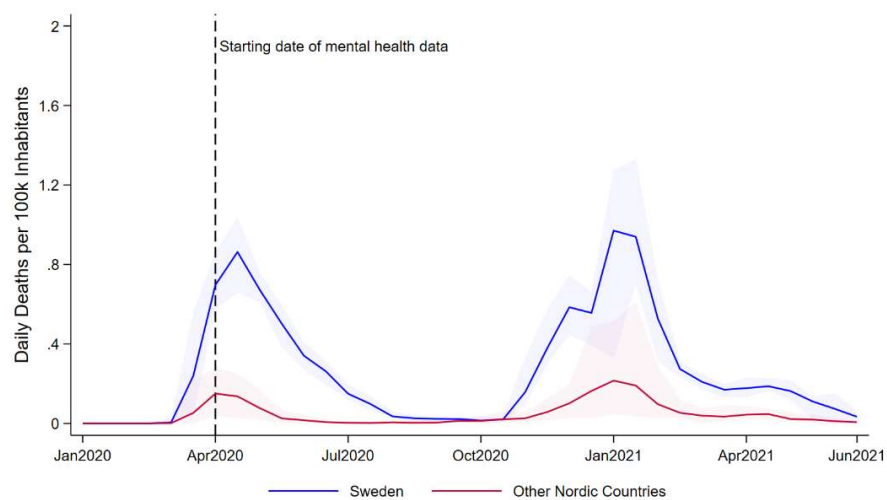
B – Stringency index
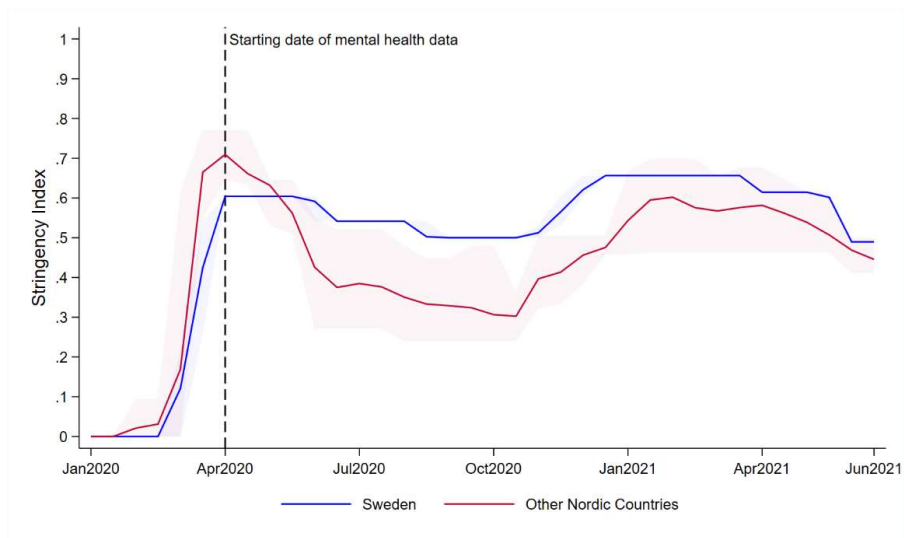
Lines represent mean fortnightly values averaged over Nordic in each strategy grouping. Figures reflect data from 4 countries, including 1 mitigator (Sweden) and 3 near-eliminators (Denmark, Finland, and Norway). Shaded areas around the lines represent the minimum and maximum observed daily country means per month.

Figure S2 – Selected policy indices by Nordic countries during April 2020-June 2021
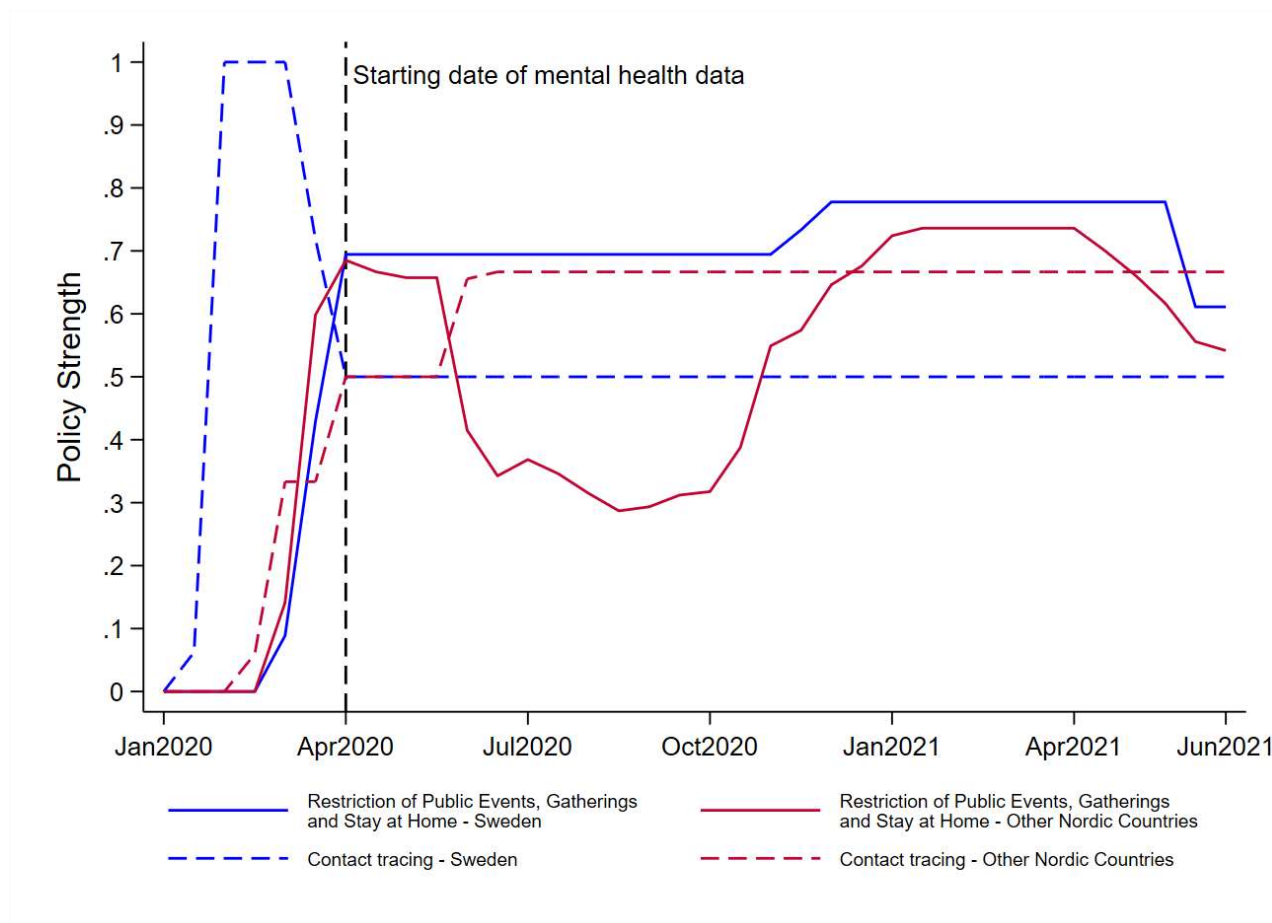
Lines represent mean fortnightly values averaged over Nordic countries in each strategy grouping. The figure reflects data from 4 countries, including 1 mitigator (Sweden) and 3 near-eliminators (Denmark, Finland, and Norway).

Figure S3 – Policy stringency, pandemic intensity, psychological distress and wellbeing per country and fortnight
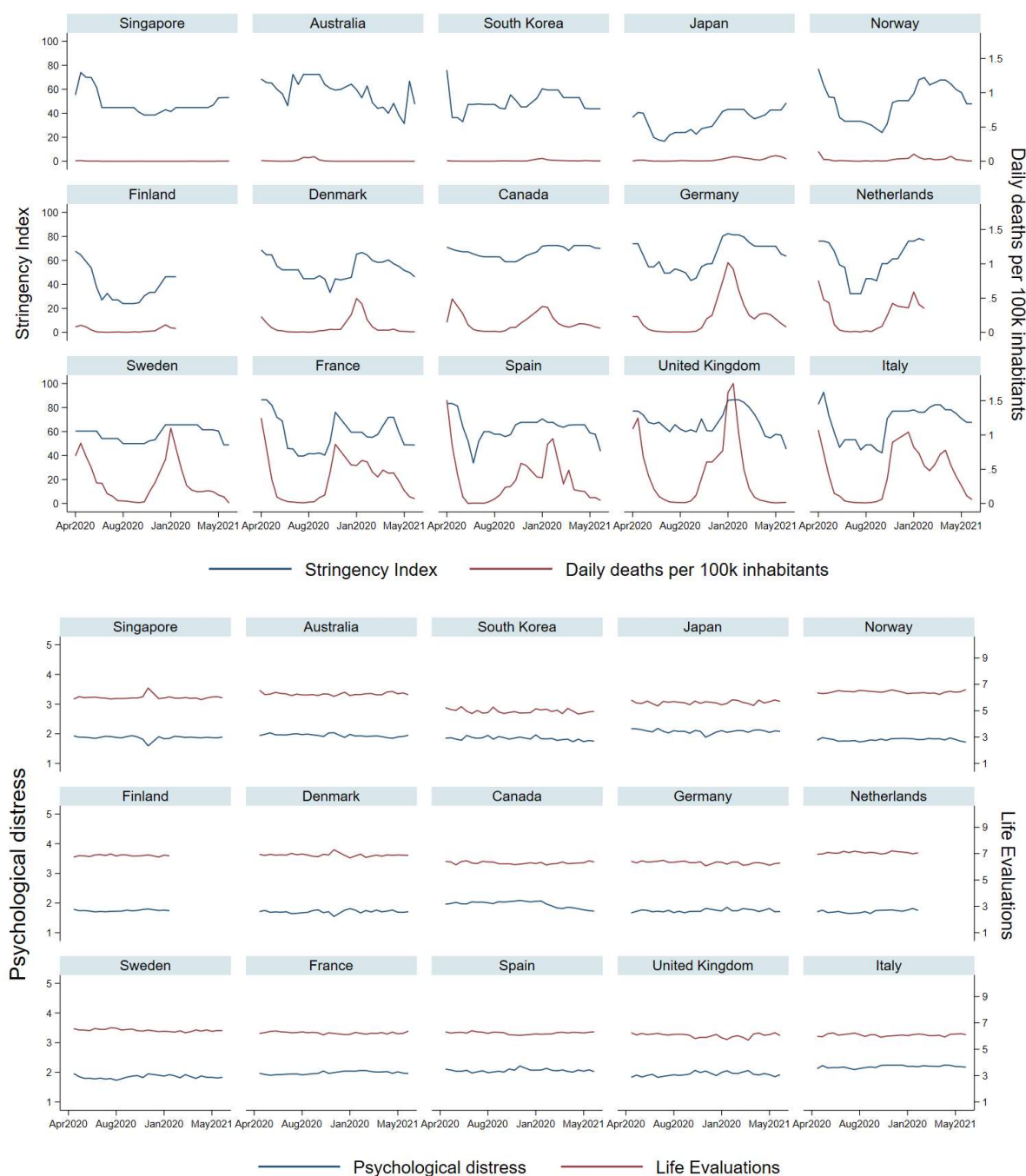
Countries are ordered by average number of daily deaths per 100k, with the four eliminators at the beginning of the first row.
Note: Data is available between April 27th, 2020 to June 31th, 2021 for thirteen countries. Data is available until late January 2021 for Finland, and early February for the Netherlands.

Figure S4 – Psychological distress and life evaluations reported by respondents for Nordic countries adopting mitigation and near-elimination strategies during April 2020-June 2021

A – Psychological Distress
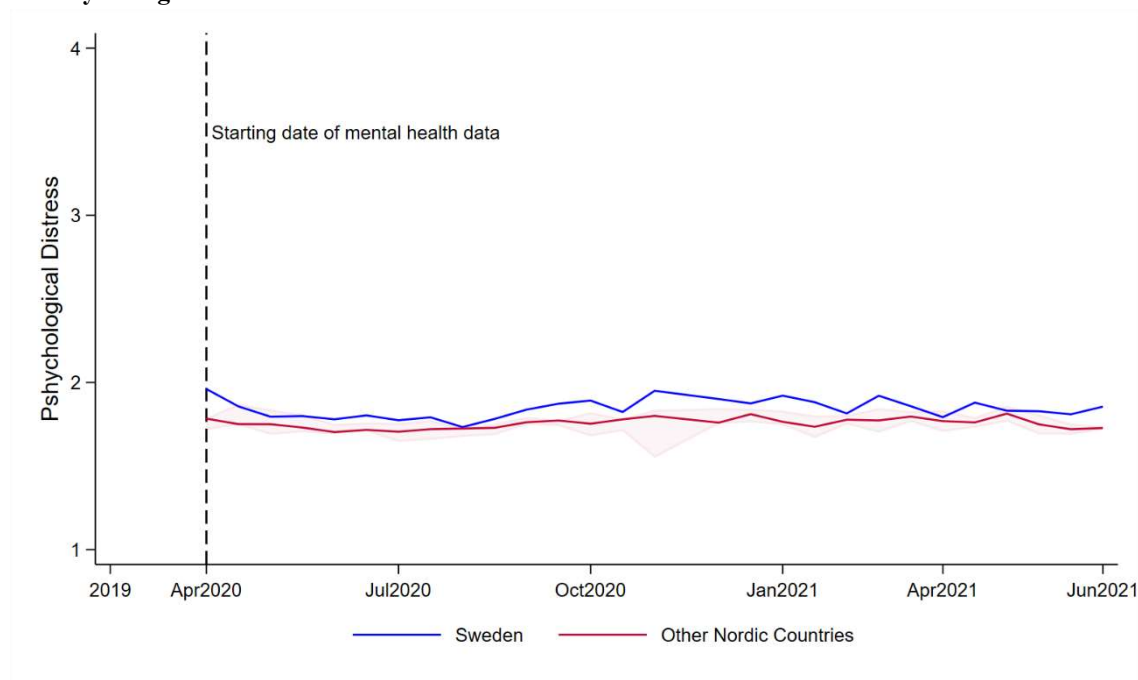
B – Life evaluations
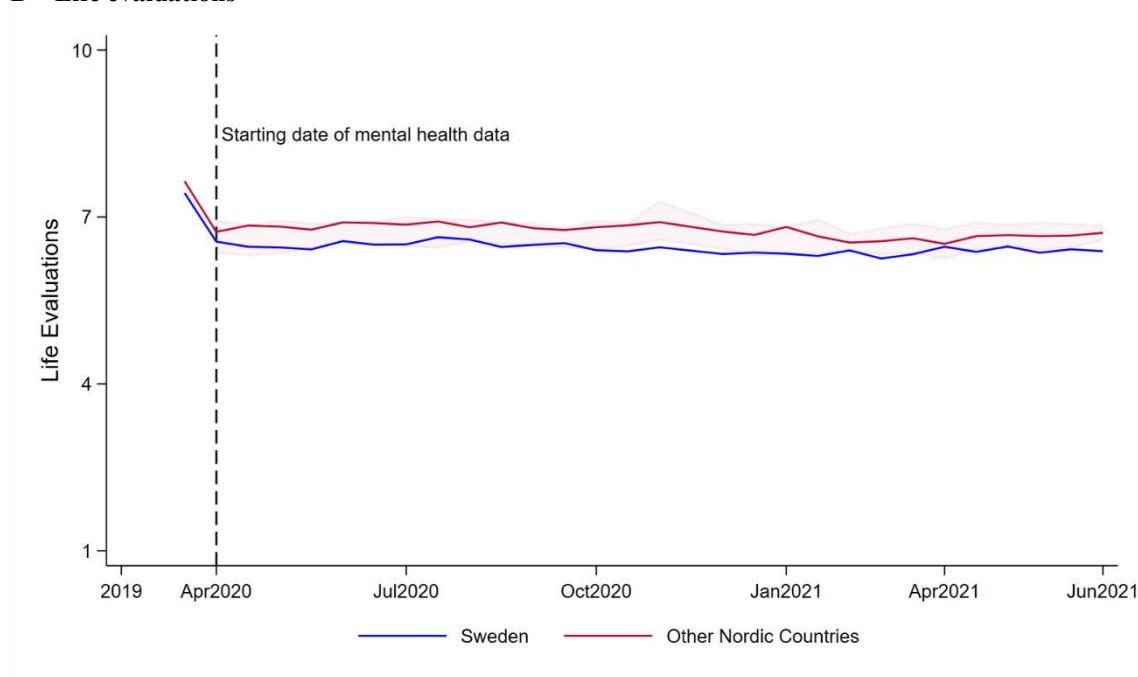
Lines represent mean fortnightly values averaged over Nordic in each strategy grouping. Shaded areas around the lines represent the range between minimum and maximum country means. Sweden has no shaded areas because it has only one data point per fortnight.

Table S2 – Differences in pandemic intensity and use of stringency policies in eliminator compared to mitigator countries

Model	Dependent variable	Eliminators compared to Mitigators				Nordic Near-Eliminators compared to Sweden			
		Coefficient	Confidence Interval (95%)	P-value	N	Coefficient	Confidence Interval (95%)	P-value	N
Pandemic Intensity and Overall Policy Stringency									
(1)	Daily deaths per 100 k	**-0.202**	**(-0.284 to -0.119)**	0.0386	6450	**-0.231**	**(-0.287 to -0.175)**	0.0009	1720
(2)	Daily cases per 100k	**-13.125**	**(-17.577 to -8.674)**	<0.0001	6460	**-17.173**	**(-24.176 to -10.170)**	0.0044	1720
(3)	Stringency index (0 to 1 scale)	**-0.112**	**(-0.223 to -0.001)**	0.0487	6460	**-0.113**	**(-0.222 to -0.004)**	0.0462	1720
Individual policy indices (0 to 1 scale)									
(1)	Testing	-0.002	(-0.148 to 0.144)	0.9792	6460	0.111	(-0.260 to 0.482)	0.4125	1720
(2)	Contact tracing	**0.253**	**(0.024 to 0.482)**	0.033	6460	0.153	(-0.306 to 0.611)	0.3668	1720
(3)	School closing	-0.112	(-0.214 to -0.011)	0.0328	6460	0.062	(-0.114 to 0.239)	0.3438	1720
(4)	Workplace closing	-0.179	(-0.388 to 0.030)	0.0883	6460	0.069	(-0.094 to 0.233)	0.2713	1720
(5)	Cancel public events	**-0.199**	**(-0.359 to -0.038)**	0.019	6460	**-0.309**	**(-0.435 to -0.183)**	0.0043	1720
(6)	Restrictions to gatherings	-0.258	(-0.598 to 0.083)	0.1267	6460	-0.097	(-0.310 to 0.117)	0.2452	1720
(7)	Close public transportation	-0.134	(-0.287 to 0.019)	0.0804	6460	**-0.365**	**(-0.568 to -0.161)**	0.0107	1720
(8)	Stay at home requirements	-0.044	(-0.128 to 0.040)	0.276	6460	**-0.123**	**(-0.208 to -0.039)**	0.0189	1720
(9)	Restrictions on internal movements	-0.02	(-0.318 to 0.278)	0.8891	6460	-0.145	(-0.514 to 0.224)	0.3005	1720
(10)	International Travel Controls	0.05	(-0.107 to 0.206)	0.5071	6460	0.007	(-0.115 to 0.129)	0.8708	1720

95% Confidence Intervals with clustered standard errors.

All models were estimated with daily data retrieved for each country from the Oxford COVID-19 Government Response Tracker (OxCGRT) between April 27th, 2020, and June 31st, 2021.

Coefficients were estimated using linear regression models with dummy variables indicating eliminator countries as the single covariate and clustered standard errors at the country level. Coefficients represent unadjusted differences in means between eliminator and mitigators (or near-eliminator and mitigator) country groupings. For example, the average contact tracing index was 0.253 points (in a 0 to 1 scale) higher for mitigators than for eliminators.

Table S3 - Descriptive statistics of survey respondents by quarter

	Apr27th-Jun20 (N = 87,605)		Jul-Sept20 (N = 99,936)		Oct-Dec20 (N = 75,366)		Jan-Mar21 (N = 91,688)		Apr-Jun21 (N = 78,055)	
Gender, No.(%)										
Female	45059	51·43%	51717	51·75%	38912	51·63%	47368	51·66%	40432	51·80%
Male	42546	48·57%	48219	48·25%	36454	48·37%	44320	48·34%	37623	48·20%
Age, No.(%)										
30 years or less	17277	19·72%	19507	19·52%	14514	19·26%	17561	19·15%	14529	18·61%
30 to 60 years	46978	53·62%	53671	53·70%	40435	53·65%	49313	53·78%	42236	54·11%
More than 60 years	23350	26·65%	26758	26·77%	20417	27·09%	24814	27·06%	21290	27·28%
Household size, No.(%)										
Alone resident	17611	20·10%	20182	20·19%	15299	20·30%	18510	20·19%	15506	19·87%
Lives with another person	29855	34·08%	34025	34·05%	25906	34·37%	30840	33·64%	26288	33·68%
Lives with two or more people	38779	44·27%	43960	43·99%	32922	43·68%	40490	44·16%	34822	44·61%
Missing	1360	1·55%	1769	1·77%	1239	1·64%	1848	2·02%	1439	1·84%
Employment status, No. (%)										
Full time employment	37023	42·26%	41821	41·85%	31233	41·44%	38487	41·98%	33308	42·67%
Full time student	5234	5·97%	5776	5·78%	4609	6·12%	5799	6·32%	4549	5·83%
Not working	6741	7·69%	7484	7·49%	5600	7·43%	6820	7·44%	5863	7·51%
Other	2015	2·30%	2511	2·51%	1568	2·08%	2053	2·24%	1679	2·15%
Part time employment	11120	12·69%	13071	13·08%	9695	12·86%	11832	12·90%	10065	12·89%
Retired	18290	20·88%	21183	21·20%	16247	21·56%	19083	20·81%	16550	21·20%
Unemployed	7179	8·19%	8090	8·10%	6414	8·51%	7614	8·30%	6041	7·74%
Missing	3	0·00%	0	0·00%	0	0·00%	0	0·00%	0	0·00%
Has household children, No. (%)										
No	54775	62·52%	63715	63·76%	48201	63·96%	57999	63·26%	49436	63·33%
Yes	32318	36·89%	35535	35·56%	26673	35·39%	33045	36·04%	28077	35·97%
Missing	512	0·58%	686	0·69%	492	0·65%	644	0·70%	542	0·69%
Has chronic illness, No. (%)										
No	55283	63·10%	60931	60·97%	45326	60·14%	52970	57·77%	43145	55·28%
Yes	29476	33·65%	35072	35·09%	26727	35·46%	30882	33·68%	25600	32·80%
Missing	2846	3·25%	3933	3·94%	3313	4·40%	7836	8·55%	9310	11·93%
Has mental health cond., No· (%)										
No	77921	88·95	87183	87·24%	65486	86·89%	76794	83·76%	62859	80·53%
Yes	6838	7·81	8820	8·83%	6567	8·71%	7058	7·70%	5886	7·54%
Missing	2846	3·25	3933	3·94%	3313	4·40%	7836	8·55%	9310	11·93%
Country, No. (%)										
Australia	6047	6·90%	6037	6·04%	5554	7·37%	6223	6·79%	6072	7·78%
Canada	4587	5·24%	6238	6·24%	4979	6·61%	6560	7·15%	5832	7·47%
Denmark	5034	5·75%	5985	5·99%	5029	6·67%	7056	7·70%	6037	7·73%
Finland	5020	5·73%	6029	6·03%	5006	6·64%	2013	2·20%	0	0·00%
France	6059	6·92%	6145	6·15%	5059	6·71%	7111	7·76%	6040	7·74%
Germany	6045	6·90%	6054	6·06%	5116	6·79%	7057	7·70%	6044	7·74%
Italy	6054	6·91%	6017	6·02%	5022	6·66%	7005	7·64%	6020	7·71%
Japan	2801	3·20%	3081	3·08%	2505	3·32%	3537	3·86%	3005	3·85%

Netherlands	2926	3·34%	2956	2·96%	2514	3·34%	2021	2·20%	0	0·00%
Norway	4881	5·57%	6143	6·15%	5011	6·65%	7002	7·64%	5987	7·67%
Singapore	4965	5·67%	6031	6·03%	5390	7·15%	6529	7·12%	6037	7·73%
South Korea	2542	2·90%	2854	2·86%	1997	2·65%	3472	3·79%	2912	3·73%
Spain	6048	6·90%	6067	6·07%	5049	6·70%	7036	7·67%	6021	7·71%
Sweden	6094	6·96%	6101	6·10%	5019	6·66%	7004	7·64%	6034	7·73%
United Kingdom	18502	21·12%	24198	24·21%	12116	16·08%	12062	13·16%	12014	15·39%
Stringency index, Mean (SD)	61·184	(13·66)	50·623	(13·10)	53·577	(14·73)	65·727	(13·21)	57·817	(11·17)
Psychological Distress, Mean (SD)	1·899	(0·84)	1·88	(0·85)	1·917	(0·86)	1·938	(0·86)	1·9	(0·86)
Missing, No. (%)	2898	3·31%	3717	3·72%	2950	3·91%	6825	7·44%	8133	10·42%
Wellbeing, Mean (SD)	6,281	(1·98)	6,289	(2·01)	6,241	(2·02)	6,173	(2·03)	6,215	(2·04)
Missing, No. (%)	7	0·01%	0	0·00%	0	0·00%	0	0·00%	0	0·00%
Daily Deaths, per 100k, Mean (SD)	0·198	(0·23)	0·023	(0·03)	0·216	(0·28)	0·391	(0·42)	0·101	(0·14)
Daily Cases, per 100k, Mean (SD)	2,208	(2·60)	2,675	(3·84)	19,598	(19·67)	18,846	(17·84)	10,916	(12·74)
Government Evaluation, Mean (SD)	2,652	(0·97)	2,530	(0·98)	2,529	(0·97)	2,469	(0·98)	2,467	(0·97)
Missing, No. (%)	46249	9·65%	5252	5·26%	4210	5·59%	4875	5·32%	4224	5·41%
Physical distancing, Mean (SD)	3,907	(0·96)	3,413	(1·07)	3,603	(1·03)	3,925	(0·94)	3,699	(1·04)
Missing, No. (%)	21	0·02%	0	0·00%	0	0·00%	0	0·00%	0	0·00%
People vaccinated per 100, Mean (SD)	0·000	(0·00)	0·000	(0·00)	0·043	(0·23)	6·140	(8·85)	31·980	(16·86)
Respondent took Covid vaccine, Mean (SD)	0·000	(0·00)	0·000	(0·00)	0·000	(0·00)	0·064	(0·24)	0·430	(0·50)

Note: Values without post-stratification weights. Data is available between April 27th, 2020, to June 31st, 2021 for thirteen countries. Data is available until late January 2021 for Finland, and early February for the Netherlands.

2.2. Trends of psychological distress and life evaluations over time for mitigator and eliminator countries

In order to evaluate trends in mental health unadjusted by deaths, cases and stringency across country groupings, Table S4 displays models with country fixed-effects, different subsets of individual level covariates - i) no controls, ii) only age and gender and iii) all individual level controls-, a linear time term and its interaction with an indicator of country grouping. Due to the small number of countries that we have in each grouping, rather than using a split-sample approach to estimate trends by group, we adopted a single model with interaction terms. Interaction terms allow for the test of differences in trends across groupings. Trends for eliminators (simple main effects) are represented by the coefficient of time (when the eliminator dummy involved in the interaction has a value of zero). Trends for mitigators are the sum of the coefficient of time and of the interaction term. In order to estimate standard errors, a new set of models was estimated substituting the dummy variable representing eliminator countries by mitigator countries, taking value 1.0 when the country is a mitigator (results not shown in table but in text).

Eliminators and mitigators displayed different trends in mental health over time. While psychological distress increased in mitigator countries (b= 0.003, 95%CI 0.001 to 0.005), the opposite was observed for eliminator countries (b=-0.003, 95%CI -0.005 to -0.002, interaction term b = -0.007, 95%CI -0.009 to -0.004, Model 3). Among Nordic countries, near-eliminators presented a significant trend psychological distress over time (b= 0.002, 95%CI 0.001 to 0.003), while mitigators also showed a significant increase (b = 0.002, 95%CI 0.001 to 0.002, interaction term b = -0.000, 95%CI -0.001 to 0.001, Model 9).

There was a deterioration in life evaluations in mitigator countries over time (b= -0.006, 95%CI -0.009 to -0.002), but no significant trends for eliminators (b = -0.001, 95%CI -0.005 to 0.004, interaction b = 0.005, 95%CI -0.001 to 0.010, Model 6). Among Nordic countries, near-eliminators presented a non-significant trend in life evaluations over time (b= -0.002, 95%CI -0.008 to 0.003), while mitigators showed a significant decrease (b = -0.008, 95%CI -0.008 to -0.007, interaction term b = 0.005, 95%CI -0.000 to 0.011, Model 12).

Furthermore, we obtained - from the online statistical appendices of *World Happiness Report 2021*- the 2019 values for Life Evaluations for our sample countries.[4] As we can observe from Figure 3B in the manuscript, although there was a pre-pandemic gap in life evaluations between mitigators and eliminators ($M_{elimi2019}$=6.36, $SD_{elim2019}$=2.05; $M_{mit2019}$=7.15, $SD_{mit2019}$=2.12) this difference narrowed over time ($M_{elimAfter2019}$=5.85, $SD_{elimiAfter2019}$=2.10, $M_{mitAfter2019}$=6.34, $SD_{mitAfter2019}$=1.98; $(F(1,448017)$=76.61, p<0.001). Besides, the pre-pandemic gap in life evaluations between Sweden and Nordic near-eliminators ($M_{nearelim2019}$=7.67, $SD_{nearelim2019}$=1.78; $M_{mit2019}$=7.43, $SD_{mit2019}$=1.84) remained stable over time ($M_{nearelim2019}$=6.68, $SD_{nearelim2019}$=1.98; $M_{mit2019}$=6.43, $SD_{mit2019}$=1.99; F(1,108419)=0.02, p=0.8786), Figure S4).

Table S4 - Trends in psychological distress, life evaluations, and containment policies over time for mitigator and eliminator countries

Panel A: Mitigators vs. Eliminators

	Psychological distress						Life evaluations					
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Time	**0.003 (0.000 to 0.006)**	0.0274	**0.004 (0.001 to 0.007)**	0.0201	**0.003 (0.001 to 0.005)**	0.0112	**-0.006 (-0.009 to -0.003)**	0.0016	**-0.007 (-0.011 to -0.003)**	0.0023	**-0.006 (-0.009 to -0.002)**	0.0051
Time*Eliminator countries	**-0.007 (-0.010 to -0.003)**	0.0010	**-0.007 (-0.010 to -0.003)**	0.0020	**-0.007 (-0.009 to -0.004)**	0.0066	**0.007 (0.003 to 0.012)**	0.0029	**0.007 (0.001 to 0.013)**	0.0177	0.005 (-0.001 to 0.010)	0.0843
R-squared	0.0240 [b]		0.0798 [b]		0.1549 [b]		0,0347		0,0552		0,1403	
N	432642		432642		432642		432642		432642		432642	

Panel B: Sweden vs. Other Nordic Countries

	Psychological distress						Life evaluations					
	Model 7		Model 8		Model 9		Model 10		Model 11		Model 12	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Time	**0.003 (0.003 to 0.003)**	<0.0001	**0.003 (0.002 to 0.003)**	<0.0001	**0.002 (0.001 to 0.002)**	<0.0001	**-0.011 (-0.011 to -0.010)**	<0.0001	**-0.011 (-0.011 to -0.010)**	<0.0001	**-0.008 (-0.008 to -0.007)**	<0.0001
Time*Eliminator countries	-0.001 (-0.002 to 0.000)	0.1060	-0.000 (-0.001 to 0.000)	0.3254	-0.000 (-0.001 to 0.001)	0.5760	**0.007 (0.002 to 0.013)**	**0.0257**	**0.006 (0.000 to 0.013)**	0.0445	0.005 (-0.000 to 0.011)	0.0594
R-squared	0.0034 [b]		0.0913 [b]		0.1841 [b]		0,0119		0,0507		0,1551	
N	106485		106485		106485		106485		106485		106485	
Age and gender controls	No		Yes		Yes		No		Yes		Yes	
All other individual controls [a]	No		No		Yes		No		No		Yes	
Country-fixed effects	Yes		Yes		Yes		Yes		Yes		Yes	

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves.

[a] Individual controls included having household children, chronic illness, mental health condition, household size and employment status.

[b] R-squared calculated using simple instead of multiple imputations.

Note: Time coefficient represents the simple main effect of the time trend for mitigator countries, i.e., when eliminator countries equal to zero.

2.3. Estimated associations between mental health and stringency

Supplementary Table S5 presents the same results as Table 1 of the main manuscript, while showing estimated coefficients for all control variables. Some associations are noteworthy, although not necessarily related to the pandemic or to policy stringency. Average levels of mental health and life satisfaction were worse for younger (vs. older) people, for individuals with chronic illnesses or mental health conditions (vs. those without), for those living on their own (vs. those living with others), and for the unemployed (vs. employed). The pandemic result of lower life satisfaction for the young differs from most pre-pandemic data showing life satisfaction to be higher for the young than for those of middle age. Strikingly, respondents' sex and having children in the household have opposite associations with psychological distress and life satisfaction. Women and people with children in their households reported being more satisfied with their lives and also experiencing higher levels of psychological distress. Finally, national vaccination rates and having been personally vaccinated were associated with life satisfaction (but not psychological distress); the stage of the vaccination rollout was negatively associated with life satisfaction while having been vaccinated had a positive and significant coefficient. These opposing signs can be reconciled through comparator effects: people are less satisfied with their lives if they are not vaccinated when others are.

Table S5 – Association between mental health, and life satisfaction, and containment policies with estimated coefficients of control variables

	Psychological distress						Life evaluations					
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies												
Stringency index [a]	**0.142 (0.091 to 0.193)**	0.0001	**0.088 (0.024 to 0.151)**	0.0107	**0.110 (0.064 to 0.155)**	0.0002	**-0.222 (-0.312 to -0.131)**	0.0001	**-0.136 (-0.214 to -0.058)**	0.0022	**-0.161 (-0.235 to -0.087)**	0.0004
Pandemic intensity												
Daily Covid deaths per 100k			**0.047 (0.022 to 0.071)**	0.0014					**-0.073 (-0.119 to -0.028)**	0.0041		
Daily Covid cases per 100k					**0.001 (0.001 to 0.001)**	0.0002					**-0.002 (-0.003 to -0.001)**	0.0004
Contextual controls												
% Vaccinated against COVID-19	-0.000 (-0.002 to 0.001)	0.8748	0.000 (-0.001 to 0.002)	0.7350	0.000 (-0.001 to 0.002)	0.5442	**-0.003 (-0.004 to -0.002)**	0.0002	**-0.003 (-0.005 to -0.002)**	<0.0001	**-0.004 (-0.006 to -0.003)**	0.0001
Linear time trend	0.002 (-0.002 to 0.006)	0.2952	0.001 (-0.003 to 0.004)	0.5956	-0.001 (-0.004 to 0.003)	0.6861	-0.006 (-0.011 to -0.002)	0.0098	-0.005 (-0.009 to -0.000)	0.0401	-0.002 (-0.007 to 0.004)	0.5118
Individual controls												
Gender (female =1)	**0.096 (0.064 to 0.129)**	<0.0001	**0.096 (0.064 to 0.129)**	<0.0001	**0.096 (0.064 to 0.129)**	<0.0001	**0.097 (0.047 to 0.148)**	0.0010	**0.097 (0.047 to 0.148)**	0.0010	**0.097 (0.047 to 0.147)**	0.0010
Age (ref. up to 30 years old)												
30 to 60 years old	**-0.232 (-0.268 to -0.196)**	<0.0001	**-0.232 (-0.269 to -0.196)**	<0.0001	**-0.232 (-0.268 to -0.196)**	<0.0001	**0.143 (0.015 to 0.271)**	0.0315	**0.143 (0.015 to 0.271)**	0.0315	**0.142 (0.014 to 0.270)**	0.0316
Above 60 years old	**-0.459 (-0.535 to -0.384)**	<0.0001	**-0.459 (-0.535 to -0.384)**	<0.0001	**-0.459 (-0.535 to -0.383)**	<0.0001	**0.723 (0.481 to 0.964)**	<0.0001	**0.723 (0.481 to 0.965)**	<0.0001	**0.722 (0.481 to 0.964)**	<0.0001
Having household children	**0.057 (0.037 to 0.078)**	0.0001	**0.057 (0.036 to 0.077)**	0.0001	**0.057 (0.036 to 0.077)**	0.0001	**0.184 (0.106 to 0.263)**	0.0002	**0.184 (0.106 to 0.263)**	0.0002	**0.184 (0.106 to 0.263)**	0.0002
Having household children - missing	-0.001 (-0.066 to 0.064)	0.9781	-0.001 (-0.066 to 0.064)	0.9806	-0.001 (-0.066 to 0.064)	0.9765	**-0.379 (-0.754 to -0.004)**	0.0480	**-0.379 (-0.754 to -0.004)**	0.0479	**-0.379 (-0.753 to -0.004)**	0.0479
Chronic illness	**0.125 (0.100 to 0.151)**	<0.0001	**0.125 (0.100 to 0.151)**	<0.0001	**0.125 (0.100 to 0.151)**	<0.0001	**-0.184 (-0.230 to -0.137)**	<0.0001	**-0.184 (-0.230 to -0.137)**	<0.0001	**-0.184 (-0.231 to -0.137)**	<0.0001
Chronic illness - missing	**0.070 (0.039 to 0.100)**	0.0003	**0.070 (0.040 to 0.099)**	0.0003	**0.071 (0.041 to 0.102)**	0.0003	**-0.100 (-0.188 to -0.012)**	0.0292	**-0.100 (-0.188 to -0.013)**	0.0271	**-0.103 (-0.188 to -0.013)**	0.0280
Mental health condition	**0.715 (0.668 to 0.762)**	<0.0001	**0.715 (0.668 to 0.762)**	<0.0001	**0.715 (0.668 to 0.762)**	<0.0001	**-0.993 (-1.048 to -0.937)**	<0.0001	**-0.993 (-1.048 to -0.937)**	<0.0001	**-0.992 (-1.048 to -0.937)**	<0.0001

People in the household (ref. lives alone)												
Lives with another person	**-0.085** (-0.103 to -0.067)	<0.0001	**-0.085** (-0.103 to -0.067)	<0.0001	**-0.085** (-0.103 to -0.067)	<0.0001	**0.547** (0.478 to 0.617)	<0.0001	**0.548** (0.478 to 0.617)	<0.0001	**0.548** (0.478 to 0.617)	<0.0001
Lives with two or more people	**-0.038** (-0.068 to -0.007)	0.0200	**-0.038** (-0.068 to -0.007)	0.0201	**-0.038** (-0.068 to -0.007)	0.0204	**0.454** (0.388 to 0.520)	<0.0001	**0.454** (0.388 to 0.520)	<0.0001	**0.454** (0.388 to 0.519)	<0.0001
Missing	0.021 (-0.012 to 0.055)	0.1867	0.021 (-0.012 to 0.055)	0.1888	0.021 (-0.012 to 0.055)	0.1840	-0.214 (-0.504 to 0.076)	0.1364	-0.214 (-0.504 to 0.077)	0.1367	-0.214 (-0.503 to 0.075)	0.1348
Employm. (ref. full time empl.)												
Full time student	**0.110** (0.064 to 0.156)	0.0002	**0.110** (0.064 to 0.156)	0.0002	**0.110** (0.064 to 0.156)	0.0002	**-0.336** (-0.463 to -0.209)	0.0001	**-0.336** (-0.463 to -0.208)	0.0001	**-0.335** (-0.463 to -0.209)	0.0001
Not working	**0.121** (0.045 to 0.197)	0.0045	**0.121** (0.045 to 0.197)	0.0044	**0.121** (0.045 to 0.197)	0.0045	**-0.797** (-1.020 to -0.574)	<0.0001	**-0.797** (-1.020 to -0.574)	<0.0001	**-0.797** (-1.021 to -0.573)	<0.0001
Other	**0.137** (0.063 to 0.211)	0.0016	**0.137** (0.063 to 0.210)	0.0016	**0.136** (0.063 to 0.210)	0.0016	**-1.056** (-1.254 to -0.859)	<0.0001	**-1.056** (-1.254 to -0.858)	<0.0001	**-1.055** (-1.252 to -0.858)	<0.0001
Part time employment	**0.044** (0.000 to 0.088)	0.0488	**0.044** (0.000 to 0.089)	0.0485	**0.044** (0.000 to 0.089)	0.0486	**-0.365** (-0.451 to -0.279)	<0.0001	**-0.365** (-0.451 to -0.279)	<0.0001	**-0.365** (-0.451 to -0.279)	<0.0001
Retired	-0.024 (-0.077 to 0.029)	0.3400	**-0.024** (-0.077 to 0.029)	0.3389	-0.024 (-0.077 to 0.029)	0.3379	-0.167 (-0.375 to 0.042)	0.1081	-0.166 (-0.375 to 0.042)	0.1087	-0.166 (-0.375 to 0.042)	0.1090
Unemployed	**0.254** (0.210 to 0.298)	<0.0001	**0.254** (0.210 to 0.299)	<0.0001	**0.254** (0.210 to 0.298)	<0.0001	**-1.356** (-1.495 to -1.217)	<0.0001	**-1.356** (-1.495 to -1.217)	<0.0001	**-1.355** (-1.494 to -1.216)	<0.0001
Vaccinated against COVID-19	-0.024 (-0.059 to 0.011)	0.1542	-0.023 (-0.056 to 0.011)	0.1673	-0.024 (-0.058 to 0.011)	0.1583	**0.309** (0.243 to 0.374)	<0.0001	**0.306** (0.241 to 0.371)	<0.0001	**0.308** (0.243 to 0.372)	<0.0001
Constant	**1.893** (1.849 to 1.936)	<0.0001	**1.920** (1.885 to 1.995)	<0.0001	**1.913** (1.871 to 1.954)	<0.0001	6.082 (5.948 to 6.217)	<0.0001	6.040 (5.875 to 6.204)	<0.0001	6.045 (5.897 to 6.193)	<0.0001
Country fixed-effects	Yes		Yes		Yes		Yes		Yes		Yes	
R-squared	0.1551 [b]		0.1552 [b]		0.1553 [b]		0.1416		0.1416		0.1417	
N	432642		432642		432642		432642		432642		432642	

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves (pooled cross sections).

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

Table S6 tests for differences in the associations between mental health and stringency across eliminator and mitigator as well as Nordic near-eliminators and mitigator country groupings.

Table S6 – Association between psychological distress, life evaluations, and containment policies between mitigator and eliminator countries

Panel A: Mitigators vs. Eliminators

	Psychological distress						Life evaluations					
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Stringency index [a]	0.142 (-0.001 to 0.006)	0.003	0.073 (-0.002 to 0.147)	0.0563	**0.109 0.054 to 0.163)**	**0.0009**	**-0.268 (-0.362 to -0.174)**	<0.0001	**-0.177 (-0.263 to -0.091)**	0.006	**-0.206 (-0.271 to 0.141)**	<0.0001
Stringency index [a]*Eliminators	-0.004 (-0.115 to 0.107)	0.9337	0.055 (-0.057 to 0.167)	0.3074	0.000 (-0.092 to 0.093)	0.9922	**0.246 (0.047 to 0.444)**	0.0189	0.168 (-0.014 to 0.351)	0.0684	**0.237 (0.079 to 0.395)**	0.0063
R-squared	0.1551 [b]		0.1552 [b]		0.1553 [b]		0.1416		0.1416		0.1417	
N	432642		432642		432642		432642		432642		432642	

Panel B: Sweden vs. Other Nordic Countries

	Psychological distress						Life evaluations					
	Model 7		Model 8		Model 9		Model 10		Model 11		Model 12	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Stringency index [a]	**0.253 (0.042 to 0.464)**	0.0392	0.108 (-0.256 to 0.471)	0.3036	0.115 (-0.302 to 0.532)	0.3415	**-0.602 (-0.796 to -0.408)**	0.0022	-0.513 (-1.033 to 0.007)	0.0518	**-0.301 (-0.572 to -0.030)**	0.0386
Stringency index [a]*Eliminators	-0.120 (-0.347 to 0.128)	0.1301	0.012 (-0.356 to 0.380)	0.8937	0.020 (-0.405 to 0.445)	0.8528	**0.340 (0.201 to 0.480)**	0.0044	0.259 (-0.180 to 0.694)	0.1556	0.036 (-0.277 to 0.348)	0.7417
R-squared	0.1447 [b]		0.1848 [b]		0.1848 [b]		0.1562		0.1562		0.1563	
N	106485		106485		106485		106485		106485		106485	

Constant	Yes	Yes	Yes	Yes	Yes	Yes
Control for deaths	No	Yes	No	No	Yes	No
Control for cases	No	No	Yes	No	No	Yes
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes
Country fixed-effects	Yes	Yes	Yes	Yes	Yes	Yes
Linear time trend	Yes	Yes	Yes	Yes	Yes	Yes

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves (pooled cross sections).

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

Table S7 tests for differences in the associations between mental health and stringency for Nordic countries only.

Table S7 - Association between psychological distress, life evaluations, and containment policies for Nordic countries

| | Psychological distress | | | | | | Life evaluations | | | | | |
| | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | |
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies												
Stringency index [a]	**0.143** **(0.051 to 0.235)**	0.0226	**0.119** **(0.052 to 0.186)**	0.0203	**0.134** **(0.058 to 0.210)**	0.0190	**-0.290** **(-0.398 to -0.181)**	0.0034	**-0.260** **(-0.377 to -0.142)**	0.0059	**-0.267** **(-0.311 to -0.224)**	0.0003
Pandemic intensity												
Daily Covid deaths per 100k			0.043 (-0.006 to 0.092)	0.0617					**-0.054** **(-0.102 to -0.006)**	0.0370		
Daily Covid cases per 100k					**0.001** **(-0.000 to 0.002)**	0.1001					-0.002 (-0.003 to 0.000)	0.0584
Constant	Yes		Yes		Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes		Yes		Yes	
Country fixed-effects	Yes		Yes		Yes		Yes		Yes		Yes	
R-squared	0.1847 [b]		0.1848 [b]		0.1848 [b]		0.1562		0.1562		0.1563	
N	106485		106485		106485		106485		106485		106485	

95% Confidence Intervals with clustered standard errors.

Estimates using pooled cross-sections. Nordic countries of our sample include Norway, Finland, Denmark, and Sweden.

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

2.4. Association between mental health and specific policies, and cumulative effects

Table S8 evaluates the association between mental health and stringency considering individual indices for the policies that comprise the Stringency index. Table S9 combines all policies with significant coefficients in Table S8 into a single index.

Table S8 - Association between psychological distress, and life evaluation, and specific containment policies

	Psychological distress						Life evaluations					
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies												
School closure	-0.001 (-0.029 to 0.026)	0.9100	-0.013 (-0.046 to 0.019)	0.3823	-0.002 (-0.033 to 0.030)	0.9043	0.008 (-0.039 to 0.055)	0.7229	0.025 (-0.035 to 0.084)	0.3851	0.001 (-0.045 to 0.062)	0.7361
Workplace closure	0.013 (-0.024 to 0.050)	0.4531	-0.005 (-0.041 to 0.031)	0.7730	-0.002 (-0.032 to 0.029)	0.9107	-0.044 (-0.133 to 0.046)	0.3119	-0.018 (-0.108 to 0.071)	0.6690	-0.013 (-0.088 to 0.061)	0.7104
Cancel public events	0.017 (-0.033 to 0.037)	0.0925	**0.027 (0.008 to 0.046)**	0.0097	0.017 (-0.002 to 0.036)	0.0707	-0.008 (-0.067 to 0.051)	0.7845	-0.022 (-0.078 to 0.034)	0.4152	-0.009 (-0.069 to 0.051)	0.7544
Restriction on gatherings	**0.040 (0.010 to 0.069)**	0.0126	**0.040 (0.016 to 0.064)**	0.0035	**0.042 (0.017 to 0.067)**	0.0035	-0.038 (-0.091 to 0.014)	0.1365	-0.039 (-0.083 to 0.005)	0.0814	-0.043 (-0.092 to 0.006)	0.082
Cancel public transport	**-0.045 (-0.086 to -0.003)**	0.0375	**-0.039 (-0.073 to -0.004)**	0.0300	-0.032 (-0.070 to 0.006)	0.0888	0.026 (-0.043 to 0.096)	0.4249	0.018 (-0.039 to 0.076)	0.5077	0.001 (-0.070 to 0.072)	0.9747
Stay at home requirements	**0.071 (0.028 to 0.115)**	0.0040	**0.05 (0.013 to 0.087)**	0.0124	**0.064 (0.024 to 0.104)**	0.0042	-0.105 (-0.229 to 0.019)	0.0912	-0.075 (-0.179 to 0.029)	0.1452	-0.090 (-0.199 to 0.020)	0.1007

Restriction on domestic travel	0.004 (-0.023 to 0.031)	0.7441	-0.004 (-0.028 to 0.019)	0.6927	-0.004 (-0.032 to 0.024)	0.7515	-0.012 (-0.053 to 0.030)	0.5569	0.000 (-0.039 to 0.040)	0.9883	0.005 (-0.036 to 0.047)	0.7805
Restriction on international travel	**0.087** **(0.052 to 0.122)**	0.0002	**0.082** **(0.051 to 0.113)**	0.0001	**0.079** **(0.048 to 0.109)**	0.0001	-0.068 (-0.142 to 0.005)	0.0642	-0.061 (-0.125 to 0.003)	0.0621	-0.050 (-0.110 to 0.009)	0.0924
Pandemic intensity												
Daily Covid deaths per 100k			**0.052** **(0.030 to 0.073)**	0.0002					**-0.073** **(-0.111 to -0.035)**	0.0010		
Daily Covid cases per 100k					**0.001** **(0.000 to 0.001)**	0.0006					**-0.002** **(-0.003 to -0.001)**	0.0001
Contextual controls	Yes		Yes		Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes		Yes		Yes	
Country-fixed effects	Yes		Yes		Yes		Yes		Yes		Yes	
Time trend	Yes		Yes		Yes		Yes		Yes		Yes	
N	432642		432642		432642		432642		432642		432642	
R-squared	0.1553 [a]		0.1555 [a]		0.1555 [a]		0.1416		0.1417		0.1417	

95% Confidence Intervals with clustered standard errors

Estimates using pooled cross-sections.

International travel controls are not included as it has no variance for most countries in the period of analysis.

All policy indicators are rescaled to the 0 to 1 range

[a] R-squared calculated using simple instead of multiple imputations.

Table S9 – Association between psychological distress, and life evaluation, and containment policies (aggregated and split in two dimensions)

	Psychological distress						Life evaluations					
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies												
Stringency index –Gatherings, Stay at home, and International travel	**0.185 (0.093 to 0.276)**	0.0009	**0.161 (0.078 to 0.245)**	0.0012	**0.170 (0.095 to 0.245)**	0.0003	**-0.215 (-0.66 to -0.064)**	0.0087	**-0.178 (-0.301 to -0.055)**	0.0078	**-0.187 (-0.302 to -0.072)**	0.0036
Stringency index – Schools, Workspace, Public events, Public transports, and Domestic travel.	0.003 (-0.068 to 0.074)	0.9299	-0.028 (-0.107 to 0.051)	0.4521	-0.015 (-0.081 to 0.051)	0.6261	-0.053 (-0.119 to 0.013)	0.1086	-0.004 (-0.106 to 0.098)	0.9328	-0.018 (-0.075 to 0.038)	0.4937
Pandemic intensity												
Daily Covid deaths per 100k			**0.046 (0.022 to 0.069)**	0.0013					**-0.072 (-0.117 to -0.027)**	0.0038		
Daily Covid cases per 100k					**0.001 (0.001 to 0.001)**	0.0001					**-0.002 (-0.003 to -0.001)**	0.0001
Contextual controls	Yes		Yes		Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes		Yes		Yes	
Country-fixed effects	Yes		Yes		Yes		Yes		Yes		Yes	
Time trend	Yes		Yes		Yes		Yes		Yes		Yes	
N	432642		432642		432642		432642		432642		432642	
R-sq	0.1552 [a]		0.1554 [a]		0.1554 [a]		0.1416		0.1417		0.1417	

95% Confidence Intervals with clustered standard errors

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves.

[a] R-squared calculated using simple instead of multiple imputations.

Table S10 – Association between mental health and cumulative number of days under low and high stringency

	Psychological Distress				Life Evaluations			
Panel A: Cumulative consecutive days	**Model 1**		**Model 2**		**Model 3**		**Model 4**	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Cumulative consecutive days under stringency 50	0.000 (-0.000 to 0.000)	0.3228	0.000 (-0.000 to 0.000)	0.3274	0.000 (-0.000 to 0.001)	0.0927	0.000 (-0.000 to 0.001)	0.1017
Cumulative consecutive days above stringency 70	-0.000 (-0.000 to 0.000)	0.5520	-0.000 (-0.000 to 0.000)	0.8225	0.000 (-0.000 to 0.001)	0.8545	-0.000 (-0.000 to 0.000)	0.9578
Stringency index	**0.097 (0.021 to 0.172)**	0.0167	**0.118 (0.062 to 0.175)**	0.0007	**-0.134 (-0.220 to -0.048)**	0.0049	**-0.159 (-0.238 to -0.081)**	0.0007
Pandemic intensity								
Daily Covid deaths per 100k	**0.045 (0.019 to 0.072)**				**-0.074 (-0.118 to -0.029)**	0.0032		
Daily Covid cases per 100k			**0.001 (0.001 to 0.001)**	0.0003			**-0.002 (-0.003 to -0.001)**	0.0003
Contextual controls	Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes	
Country-fixed effects	Yes		Yes		Yes		Yes	
N	432642		432642		432642		432642	
R-sq	0.155 [a]		0.155 [a]		0.142		0.142	

Panel B: Cumulative days	**Model 5**		**Model 6**		**Model 7**		**Model 8**	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Cumulative days under stringency 50	0.000 (-0.000 to 0.000)	0.3532	0.000 (-0.000 to 0.001)	0.1394	0.000 (-0.000 to 0.000)	0.6447	0.000 (-0.000 to 0.000)	0.5955
Cumulative days above stringency 70	0.000 (-0.000 to 0.000)	0.8498	0.000 (-0.000 to 0.000)	0.6590	-0.000 (-0.001 to 0.000)	0.7144	-0.000 (-0.001 to 0.000)	0.5036
Stringency index	**0.088 (0.030 to 0.147)**	0.0064	**0.108 (0.069 to 0.148)**	0.0001	**-0.126 (-0.228 to -0.024)**	0.0192	**-0.165 (-0.250 to -0.049)**	0.0064
Pandemic intensity								
Daily Covid deaths per 100k	**0.046 (0.025 to 0.068)**	0.0006			**-0.075 (-0.121 to -0.027)**	0.0043		
Daily Covid cases per 100k			**0.001 (0.001 to 0.001)**	<0.0001			**-0.002 (-0.003 to -0.001)**	0.0004
Contextual controls	Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes	
Country-fixed effects	Yes		Yes		Yes		Yes	
N	432642		432642		432642		432642	
R-sq	0.155 [a]		0.155 [a]		0.142		0.142	

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves (pooled cross-sections).

[a] R-squared calculated using simple instead of multiple imputations.

2.5. Heterogeneous associations between mental health and policy stringency

We investigated whether the association between policy stringency and mental health varied across different demographic subgroups defined by sex, age (categorized into three brackets: below 30, between 30 and 60, and above 60 years old), living alone (vs living in multi-people households), and having children in the household.

The only significant two-way interaction observed was between sex and stringency in predicting psychological distress (b = ·214, 95%CI 0·110 to 0·318, Table A3, for the moving average of daily cases or deaths per 100k as the measure of pandemic intensity and b = ·214, 95%CI 0·110 to 0·318). A split-sample analysis showed that the association was stronger for women (b = 0·121, 95%CI 0·052 to 0·191 for using deaths as a control and b = 0·151, 95%CI 0·098 to 0·205 for cases) than for men (b = 0·050, 95%CI -0·021 to 0·120 when controlling for deaths and b = 0·062, 95%CI 0·011 to 0·113 with daily cases per 100k as the covariate, Figure S5).

When life evaluations were the outcome, a more nuanced pattern emerged, as suggested by models with a significant three-way interaction between respondent's sex, stringency and dummy variables indicating individuals from 30 to 45 years old (b= -0·779, 95%CI -1·354 to -0·203 controlling for daily deaths, and b=-0·778, 95%CI -1·351 to -0·205, controlling for daily cases) and above 60 years old (b=-1·314, 95%CI -1·998 to -0·630, controlling for daily deaths, and b=-1·315, 95%CI -1·997 to -0·633, controlling for daily cases). This three way-interaction implies that the association between wellbeing and stringency is conditional on age for women but not for men. In a split-sample analysis, the association between stringency and life evaluation is more negative for women above 60 years old (b=-0·348, 95%CI -0·559 to -0·138 controlling for daily deaths, and b=-0·349, 95%CI -0·585 to -0·114, controlling for daily cases) and women between 30 and 60 (b=-·124, 95%CI -0·330 to 0·081, controlling for daily deaths, and b=-·213, 95%CI -0·376 to -0·049, controlling for daily cases) than for younger women (b= ·049, 95%CI -0·191 to 0·289, controlling for daily deaths, and b=-·022, 95%CI -0·211 to 0·166, controlling for daily cases). There were no significant differences across age groups for men.

Table S11 - Estimates of interactions between demographics and Stringency index

	Psychological distress				Life evaluations			
	Model 1		Model 2		Model 3		Model 4	
Age (reference up to 30 years old)	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Stringency index	0.083 (-0.119 to 0.284)	0.3893	0.104 (-0.095 to 0.303)	0.2770	-0.166 (-0.627 to -0.294)	0.4513	-0.189 (-0.688 to 0.311)	0.4312
30 to 60 years old	**-0.242 (-0.370 to -0.115)**	0.0013	**-0.243 (-0.370 to -0.115)**	0.0013	0.057 (-0.217 to 0.331)	0.6619	0.057 (-0.217 to 0.332)	0.6610
More than 60 years old	**-0.449 (-0.675 to -0.222)**	0.0010	**-0.450 (-0.677 to -0.222)**	0.0010	**0.830 (0.274 to 1.387)**	0.0064	**0.831 (0.274 to 1.389)**	0.0064
30 to 60 years old * Stringency index	0.018 (-0.168 to 0.204)	0.8388	0.018 (-0.168 to 0.204)	0.8345	0.148 (-0.302 to 0.599)	0.4919	0.147 (-0.305 to 0.599)	0.4959
More than 60 years old * Stringency index	-0.018 (-0.348 to 0.312)	0.9059	-0.017 (-0.348 to 0.315)	0.9146	-0.189 (-1.101 to 0.724)	0.6642	-0.191 (-1.104 to 0.722)	0.6605
Gender (reference male)								
Stringency index	-0.022 (-0.101 to 0.057)	0.5540	-0.001 (-0.067 to 0.066)	0.9810	-0.019 (-0.182 to 0.143)	0.8050	-0.043 (-0.214 to 0.127)	0.5910
Female	-0.027 (-0.094 to 0.040)	0.3922	-0.027 (-0.095 to 0.040)	0.3954	**0.229 (0.084 to 0.374)**	0.0045	**0.229 (0.084 to 0.373)**	0.0045
Female * Stringency index	**0.214 (0.110 to 0.318)**	0.0007	**0.214 (0.110 to 0.318)**	0.0007	-0.228 (-0.478 to 0.022)	0.0710	-0.228 (-0.476 to 0.021)	0.0702
Household children (reference no household children)								
Stringency index	**0.099 (0.030 to 0.167)**	0.0086	**0.123 (0.067 to 0.179)**	0.0004	-0.070 (-0.273 to 0.134)	0.4747	-0.105 (-0.292 to 0.081)	0.2466
Household children	**0.076 (0.011 to 0.141)**	0.0245	**0.080 (0.015 to 0.144)**	0.0195	0.295 (-0.010 to 0.600)	0.0573	0.289 (-0.017 to 0.594)	0.0625
Household children * Stringency index	-0.033 (-0.144 to 0.078)	0.5307	-0.039 (-0.151 to 0.072)	0.4599	-0.192 (-0.623 to 0.239)	0.3562	-0.181 (-0.612 to 0.250)	0.3831
Household size (reference lives alone)								
Stringency index	0.081 (-0.036 to 0.199)	0.1556	0.103 (-0.004 to 0.210)	0.0583	-0.059 (-0.368 to 0.250)	0.6881	-0.090 (-0.395 to 0.214)	0.5353
Lives with another person	**-0.089 (-0.162 to -0.016)**	0.0213	**-0.089 (-0.163 to -0.016)**	0.0214	**0.597 (0.368 to 0.825)**	0.0001	**0.597 (0.368 to 0.826)**	0.0001
Lives with two or more people	-0.043 (-0.127 to 0.040)	0.2816	-0.041 (-0.127 to 0.044)	0.3126	**0.515 (0.272 to 0.757)**	0.0005	**0.511 (0.264 to 0.759)**	0.0006
Lives with another person * Stringency index	0.007 (-0.109 to 0.123)	0.8971	0.008 (-0.109 to 0.125)	0.8844	-0.085 (-0.467 to 0.296)	0.6383	-0.087 (-0.468 to 0.295)	0.6343
Lives with two or more people * Stringency index	0.008 (-0.142 to 0.158)	0.9099	0.005 (-0.149 to 0.158)	0.9484	-0.102 (-0.514 to 0.310)	0.6035	-0.096 (-0.515 to 0.322)	0.6290
Employment status (reference full time employment)								
Stringency index	0.059 (-0.049 to 0.166)	0.2582	0.080 (-0.020 to 0.181)	0.1079	-0.040 (-0.349 to 0.269)	0.7874	-0.063 (-0.387 to 0.260)	0.6810
Full time student	0.070 (-0.092 to 0.231)	0.3670	0.070 (-0.093 to 0.232)	0.3695	-0.236 (-0.574 to 0.102)	0.1565	-0.236 (-0.573 to 0.102)	0.1571
Not working	-0.022 (-0.185 to 0.141)	0.7339	-0.022 (-0.188 to 0.143)	0.7755	-0.478 (-1.182 to 0.226)	0.1676	-0.478 (-1.200 to -0.239)	0.1696
Other	0.043 (-0.168 to 0.254)	0.6651	0.036 (-0.174 to 0.245)	0.7154	**-0.730 (-1.125 to -0.243)**	0.0062	**-0.719 (-0.479 to -0.091)**	0.0063
Part-time employment	0.024 (-0.098 to 0.145)	0.6781	0.024 (-0.098 to 0.147)	0.6762	**-0.285 (-0.476 to -0.094)**	0.0065	**-0.285 (-0.479 to -0.091)**	0.0070

	Coef (95% CI)	p	Coef (95% CI)	p	Coef (95% CI)	p	Coef (95% CI)	p
Retired	0.009 (-0.105 to 0.122)	0.8719	0.007 (-0.110 to 0.124)	0.8985	-0.176 (-0.502 to 0.150)	0.2657	-0.174 (-0.501 to 0.154)	0.2748
Unemployed	**0.193 (0.048 to 0.338)**	0.0130	**0.193 (0.049 to 0.337)**	0.0126	**-1.244 (-1.513 to -0.974)**	<0.0001	**-1.244 (-1.512 to -0.975)**	<0.0001
Full time student * Stringency index	0.071 (-0.164 to 0.306)	0.5237	0.071 (9-0.165 to 0.307)	0.5241	-0.176 (-0.681 to 0.329)	0.4677	-0.176 (-0.682 to 0.329)	0.4668
Not working * Stringency index	0.247 (-0.051 to 0.545)	0.0962	0.248 (-0.055 to 0.551)	0.1005	-0.552 (-1.661 to 0.557)	0.3035	-0.554 (-1.666 to 0.559)	0.3040
Other * Stringency index	0.155 (-0.149 to 0.458)	0.2868	0.166 (-0.136 to 0.468)	0.3539	-0.540 (-1.314 to 0.235)	0.1574	-0.555 (-1.324 to 0.214)	0.1439
Part-time employment * Stringency index	0.034 (-0.128 to 0.200)	0.6431	0.035 (-0.131 to 0.201)	0.6525	-0.139 (-0.499 to 0.222)	0.4226	-0.138 (-0.501 to 0.225)	0.4290
Retired * Stringency index	-0.056 (-0.216 to 0.105)	0.4644	-0.053 (-0.219 to 0.113)	0.4999	0.015 (-0.655 to 0.685)	0.9625	0.011 (-0.659 to 0.681)	0.9723
Unemployed * Stringency index	0.105 (-0.137 to 0.348)	0.3634	0.105 (-0.135 to 0.345)	0.3601	-0.195 (-0.604 to 0.215)	0.3254	-0.194 (-0.600 to 0.213)	0.3242
Age (reference up to 30 years old) and Gender (reference Male)								
Stringency index	0.023 (-0.228 to 0.275)	0.8440	0.044 (-0.204 to 0.293)	0.7056	-0.464 (-1.169 to 0.241)	0.180	-0.486 (-0.688,0.311)	0.1815
30 to 60 years old	-0.177 (-0.326 to -0.027)	0.0240	**-0.177 (-0.326 to -0.028)**	0.0237	-0.259 (-0.624 to 0.106)	0.1509	-0.258 (-0.623 to 0.107)	0.1512
More than 60 years old	**-0.429 (-0.692 to -0.166)**	0.0039	**-0.430 (-0.693 to -0.165)**	0.0039	0.479 (-0.161 to 1.119)	0.1305	0.480 (-0.160 to 1.120)	0.1302
Female	0.058 (-0.050 to 0.167)	0.2665	0.058 (-0.050 to 0.166)	0.2649	**-0.288 (-0.575 to -0.002)**	0.0488	**-0.288 (-0.574 to -0.003)**	0.0478
30 to 60 years old * Stringency index	-0.038 (-0.264 to 0.188)	0.7182	-0.038 (-0.263 to -0.179)	0.7219	0.553 (-0.103 to 1.209)	0.0921	0.552 (-0.103 to 1.207)	0.0924
More than 60 years old * Stringency index	-0.079 (-0.471 to 0.312)	0.6677	-0.078 (-0.470 to 0.314)	0.6733	0.484 (-0.703 to 1.671)	0.3968	0.482 (-0.704 to 1.668)	0.3981
Female * Stringency index	0.108 (-0.060 to 0.276))	0.1864	0.108 (-0.50 to 0.276)	0.1857	0.562 (-0.005 to 1.129)	0.0518	0.562 (-0.001 to 1.125)	0.0505
Female * 30 to 60 years old	-0.130 (-0.276 to 0.015)	0.0744	-0.130 (-0.275 to 0.015)	0.0739	**0.606 (0.253 to 0.958)**	0.0025	**0.605 (0.253 to 0.957)**	0.0024
Female * More than 60 years old	-0.046 (-0.171 to 0.080)	0.4446	-0.046 (-0.173 to 0.079)	0.4378	**0.687 (0.314 to 1.061)**	0.0015	**0.688 (0.315 to 1.061)**	0.0014
Female * 30 to 60 years old * Stringency index	0.118 (-0.088 to 0.325)	0.2352	0.118 (-0.087 to 0.324)	0.2347	**-0.779 (-1.354 to -0.203)**	0.0116	**-0.778 (-1.351 to -0.205)**	0.0114
Female * More than 60 years old * Stringency index	0.131 (-0.053 to 0.316)	0.1476	0.132 (-0.052 to 0.316)	0.1441	**-1.314 (-1.998 to -0.630)**	0.0010	**-1.315 (-1.997 to -0.633)**	0.0010
Control for daily deaths per 100k	Yes		No		Yes		No	
Control for daily cases per 100k	No		Yes		No		Yes	
Contextual controls	Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes	
Country-fixed effects	Yes		Yes		Yes		Yes	

95% Confidence Intervals with clustered standard errors.
Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves.

Figure S5 – Standardized associations between policy stringency, pandemic intensity and mental health as observed for men and women.

2.6. Robustness checks of the association between mental health and policy stringency

Table S12 –Assessment of functional form of the association between psychological distress, life evaluations, and containment policies

| | Psychological distress | | | | | | | | Life evaluations | | | | | | | |
| | Model 1 | | Model 2 | | Model 3 | | Model 4 | | Model 5 | | Model 6 | | Model 7 | | Model 8 | |
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies																
Stringency index [a]	**0.153 (0.077 to 0.229)**	0.009	**0.159 (0.079 to 0.239)**	0.0010					-0.070 (-0.238 to 0.097)	0.3813	-0.073 (-0.241 to 0.096)	0.3719				
Stringency above median	-0.007 (-0.028 to 0.014)	0.4664	-0.013 (-0.036 to 0.010)	0.2353					-0.001 (-0.044 to 0.042)	0.9501	0.006 (-0.036 to 0.048)	0.7711				
Stringency index* Stringency above median	-0.125 (-0.394 to 0.144)	0.3329	-0.030 (-0.243 to 0.183)	0.7629					-0.169 (-0.482 to 0.143)	0.2649	-0.235 (-0.528 to 0.058)	0.1074				
Stringency index centered					**0.085 (0.025 to 0.146)**	0.0095	**0.109 (0.067 to 0.152)**	0.0001					**-0.140 (-0.223 to 0.057)**	0.0028	**-0.159 (-0.234 to -0.083)**	0.0005
Stringency index centered squared					-0.132 (-0.674 to 0.409)	0.6041	-0.052 (-0.600 to 0.500)	0.8462					-0.456 (-1.134 to 0.222)	0.1715	-0.557 (-1.260 to 0.146)	0.1112
Pandemic intensity																
Daily Covid deaths per 100k	**0.057 (0.012 to 0.102)**	0.0169			**0.049 (0.020 to 0.077)**	0.0028			-0.059 (-0.098 to -0.021)	0.0050			-0.068 (-0.108 to -0.028)	0.0026		
Daily Covid cases per 100k			**0.001 (0.001 to 0.002)**	0.003			**0.001 (0.001 to 0.001)**	0.002			-0.002 (-0.003 to -0.001)	0.001			-0.002 (-0.003 to -0.001)	0.001
Individual controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Country fixed-effects	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	

R-squared	0.1553 [b]	0.1553 [b]	0.1552 [b]	0.1553 [b]	0,1416	0,1417	0,1416	0,1417
N	432642	432642	432642	432642	432642	432642	432642	432642

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves.

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

Note: Table S11 displays Table 1 results, considering potential nonlinearities in the associations with the Stringency index. In models 1-2 and 5-6 we have included the Stringency index, a dummy for the median value of stringency, and its product (piecewise regression). In models 3-4 and 7-8 we include the centered around the mean variable of stringency, and its squared term. In all models, the interaction or quadratic terms were not significant, indicating no support for nonlinear associations.

Table S13 – Robustness check of the association between psychological distress, life evaluations, and containment policies using pseudo-panels

	Psychological distress						Life evaluations					
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies												
Stringency index [a]	**0.135** **(0.078 to 0.192)**	0.0020	**0.072** **(0.006 to 0.137)**	0.0352	**0.098** **(0.048 to 0.148)**	0.0009	**-0.262** **(-0.393 to -0.131)**	0.0007	**-0.148** **(-0.269 to -0.026)**	0.0206	**-0.188** **(-0.294 to -0.081)**	0.0021
Pandemic intensity												
Daily Covid deaths per 100k			**0.052** **(0.027 to 0.076)**	0.0005					**-0.093** **(-0.153 to -0.033)**	0.0052		
Daily Covid cases per 100k					**0.001** **(0.001 to 0.002)**	0.0001					**-0.002** **(-0.003 to -0.001)**	0.0001
Contextual Controls												
% Vaccinated against COVID-19	-0.001 (-0.002 to 0.001)	0.2654	-0.000 (-0.001 to 0.001)	0.6652	-0.000 (-0.001 to 0.002)	0.9785	0.001 (-0.000 to 0.002)	0.0684	0.000 (-0.001 to 0.002)	0.5058	0.000 (-0.002 to 0.002)	0.9361
Linear time trend	0.002 (-0.002 to 0.006)	0,0616	0.001 (-0.000 to 0.004)	0.1544	0.000 (-0.001 to 0.003)	0.5940	**-0.004** **(-0.006 to -0.001)**	0.0110	**-0.003** **(-0.005 to -0.000)**	0.0332	-0.001 (-0.003 to 0.001)	0.3646
Constant	Yes		Yes		Yes		Yes		Yes		Yes	
Individual controls	No		No		No		No		No		No	
Country-fixed effects	Yes		Yes		Yes		Yes		Yes		Yes	
Cohort-fixed effects	Yes		Yes		Yes		Yes		Yes		Yes	
R-squared between	0.0105		0.0155		0.0166		0.0069		0.0081		0.0097	
R-squared	0.8715		0.8729		0.8734		0.8309		0.8320		0.8326	
N	5,545		5,545		5,545		5,546		5,546		5,546	

95% Confidence Intervals with clustered standard errors.

Robustness checks of results in Table 1 using pseudo-panels. Pseudo-panels cohorts were defined by the interaction of 10-year age ranges, gender, and country. Time was divided in 15-day periods. R2 are higher in pseudo panel models as pseudo-panel fixed effects capture most of cross-sectional variability.

[a] Rescaled to the 0-1 range.

Table S14 – Robustness check of the association between mental health, and life satisfaction, and containment policies with winsorized cases and deaths per 100k

	Psychological distress				Life Evaluations			
					Model 3		Model 4	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies								
Stringency index [a]	**0.085** (**0.021 to 0.150**)	0.0141	**0.109** (**0.064 to 0.153**)	0.0001	**-0.144** (**-0.224 to -0.064**)	0.0018	**-0.161** (**-0.235 to -0.087**)	0.0004
Pandemic intensity								
Daily Covid deaths per 100k	**0.050** (**0.022 to 0.078**)	0.0020			**-0.071** (**-0.123 to -0.018**)	0.0125		
Daily Covid cases per 100k			**0.001** (**0.001-0.001**)	0.0001			**-0.002** (**-0.003 to -0.001**)	0.0004
Constant	Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes	
Country fixed-effects	Yes		Yes		Yes		Yes	
R-squared	0.1552 [b]		0.1553 [b]		0.1416		0.1417	
N	432642		432642		432642		432642	

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves.

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

Robustness checks of results in Table 1, including the winsorized variables of daily deaths and cases per 100k. The winsorization method replaces extreme values (above 99th percentile) by the 99th percentile value to control the influence of outliers. The relevant results, relative to the coefficient of the Stringency index hold.

Table S15 – Robustness checks of the association between mental health, and life satisfaction, and containment policies with cases and deaths combined as covariates

	Psychological distress		Life Evaluations	
	Model 1		Model 2	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies				
Stringency index [a]	**0.085** **(0.027 to 0.143)**	0.0080	**-0.134** **(-0.213 to -0.054)**	0.0029
Pandemic intensity				
Daily Covid deaths per 100k	**0.027** **(0.001 to 0.052)**	0.0412	-0.03 (-0.069 to 0.009)	0.1176
Daily Covid cases per 100k	**0.001** **(0.000 to 0.001)**	0.0021	**-0.002** **(-0.002 to -0.001)**	0.0003
Constant	Yes		Yes	
Individual controls	Yes		Yes	
Country fixed-effects	Yes		Yes	
R-squared	0.1553 [b]		0.1417	
N	432642		432642	

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves.

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

Robustness checks of results in Table 1, including both cases and deaths per 100k as covariates in the same regression. The correlation between the two variables is r=0.61. The relevant results, relative to the coefficient of the Stringency index and pandemic intensity hold.

Table S16 – Robustness checks of the association between psychological distress, and life satisfaction, and containment policies with quartile imputations of PHQ-4

	Psychological distress Missing replaced by percentile 25						Psychological distress Missing replaced by percentile 75					
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies												
Stringency index [a]	**0.171** (0.055 to 0.287)	0.0069	0.106 (-0.045 to 0.256)	0.1547	**0.134** (0.032 to 0.237)	0.0138	**0.114** (0.062 to 0.165)	0.0003	**0.059** (0.002 to 0.116)	0.0446	**0.086** (0.037 to 0.136)	0.0023
Pandemic intensity												
Daily Covid deaths per 100k			**0.056** (0.016 to 0.096)	0.0090					**0.047** (0.020 to 0.074)	0.0024		
Daily Covid cases per 100k					**0.001** (0.001-0.002)	0.0013					**0.001** (0.000 to 0.001)	0.0046
Constant	Yes		Yes		Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes		Yes		Yes	
Country fixed-effects	Yes		Yes		Yes		Yes		Yes		Yes	
R-squared	0.1558		0.1559		0.156		0.1548		0.1549		0.1549	
N	432642		432642		432642		432642		432642		432642	

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves.

[a] Rescaled to the 0-1 range.

Note: Robustness checks of results in Table 1, considering the possibility of non-randomness in PHQ-4 missing data. We replace missing values of psychological distress by the 1st quartile (models 1-3) and 3rd quartile (models 4-6) of the PHQ-4 distribution. The average life evaluation score of individuals with missing psychological distress is slightly lower than those without missing data (M = 6.04 vs. M = 6.25, p<.001). This average is located slightly below the mean of the whole sample (mean=6.24, 1Q =5, 3Q=8). Besides, approximately half (51.11%) of the respondents with missing in psychological distress scored below the median value of the whole sample for life evaluations, and 19.66% below the first quartile. In other words, although these individuals did not report psychological distress information, they do not seem to belong to the lower end of the distribution of life evaluations. We then replace the missing values of psychological distress by its quartiles, in a conservative test to account for possible non-randomness of the missing data in either direction. Main results remain unaltered.

Table S17 – Robustness check of the association between psychological distress, life evaluations, and containment policies using post-hoc stratification survey weights

	Psychological distress						Life evaluations					
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies												
Stringency index [a]	**0.140** (0.087 to 0.193)	0.0001	**0.083** (0.019 to 0.148)	0.0152	**0.108** (0.061 to 0.155)	0.0030	**-0.209** (-0.289 to -0.130)	0.0001	**-0.129** (-0.203 to -0.054)	0.0023	**-0.148** (-0.215 to -0.081)	0.0030
Pandemic intensity												
Daily Covid deaths per 100k			**0.048** (0.022 to 0.075)	0.0018					**-0.069** (-0.112 to -0.026)	0.004		
Daily Covid cases per 100k					**0.001** (0.001 to 0.001)	0.0001					**-0.002** (-0.003 to -0.001)	0.0001
Constant	Yes		Yes		Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes		Yes		Yes	
Country fixed-effects	Yes		Yes		Yes		Yes		Yes		Yes	
R-squared	0.1554 [b]		0.1556 [b]		0.1556 [b]		0.1444		0.1445		0.1445	
N	432642		432642		432642		432642		432642		432642	

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey

waves.

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

Robustness checks of results in Table 1 using post-stratification weights calculated by YouGov to account for small deviations from the sampling plan in data collection. All results hold with negligible changes in coefficients.

Table S18– Robustness check of the association between psychological distress, life evaluations, and containment policies using two-way fixed effects

	Psychological distress						Life evaluations					
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies												
Stringency index [a]	**0.105** (0.030 to 0.180)	0.0359	**0.080** (0.006 to 0.154)	0.0230	**0.079** (0.013 to 0.145)	0.0010	**-0.161** (-0.260 to -0.062)	0.0462	**-0.113** (-0.191 to -0.035)	0.0364	**-0.107** (-0.196 to -0.017)	0.0416
Pandemic intensity												
Daily Covid deaths per 100k			**0.036** (0.009 to 0.063)	0.0021					**-0.069** (-0.115 to -0.022)	0.0216		
Daily Covid cases per 100k					**0.001** (0.000 to 0.001)	0.1890					**-0.002** (-0.003 to -0.001)	0.0004
Constant	Yes		Yes		Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes		Yes		Yes	
Country fixed-effects	Yes		Yes		Yes		Yes		Yes		Yes	
Time fixed-effects	Yes		Yes		Yes		Yes		Yes		Yes	
R-squared	0.1555 [b]		0.1556 [b]		0.1556 [b]		0.1418		0.1418		0.1419	
N	432642		432642		432642		432642		432642		432642	

95% Confidence Intervals with clustered standard errors.

Estimates using pooled cross-sections.

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

2.7. Association between government evaluation, physical distancing, and containment policies

Association between policy strength and mediators
Physical distancing increased with policy stringency (b=1·848, 95%CI 1·566–2·130, controlling for deaths and b=2·091, 95%CI 1·768–2·414, controlling for cases, Table S19), without significant differences across mitigator and eliminator countries (Table S20). We observed a similar positive association between physical distancing and pandemic intensity, using either daily deaths or cases. These results indicate that people physically distance more when containment policies require them to, as well as when pandemic intensity is greater.

We observed a negative association between policy stringency and government evaluations within the same countries, controlling for daily deaths (b=-0·291, 95%CI -0·531– -0·052, Table 2) or cases (b=-0·217, 95%CI -0·441–0·008). Thus, governments were rated less favourably when they adopted more stringent policies, controlling for pandemic intensity. While the association between policy stringency and government evaluations was weaker for eliminators, the coefficients were not significantly different across mitigators and eliminators, nor the Nordic mitigator and near-eliminators (see Table S17 in the Supplementary Material). However, means for government evaluation differed across mitigators (M=2.44, SD=0.97) and eliminators (M=2·81, SD=0·93, p<0·0001), as well as between the Nordic mitigator (M=2·35, SD=0·99) and near-eliminators (M=2·92, SD=0·86, p<0·0001). Thus, government evaluations were significantly more positive in both groups of eliminator countries. We conducted the same robustness checks as in Table 1; results are presented in the section 2.8 of the appendix.

Table S19 – Association between government evaluation, physical distancing, and containment policies

	Government Evaluation				Physical Distancing			
	Model 1		Model 2		Model 3		Model 4	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies								
Stringency index [a]	**-0.291** (**-0.531 to -0.052**)	0.0211	-0.217 (-0.441 to 0.008)	0.0574	**1.848** (**1.566 to 2.130**)	<0.0001	**2.091** (**1.768 to 2.414**)	<0.0001
Pandemic intensity								
Daily Covid deaths per 100k	0.002 (-0.123 to 0.128)	0.9661			**0.333** (**0.229 to 0.436**)	<0.0001		
Daily Covid cases per 100k			-0.002 (-0.004 to 0.000)	0.0658			**0.005** (**0.002 to 0.007**)	0.0006
Constant	Yes		Yes		Yes		Yes	
Contextual controls	Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes	
Country-fixed effects	Yes		Yes		Yes		Yes	
Linear trend	Yes		Yes		Yes		Yes	
R-square	0.1907 [b]		0.1913 [b]		0.1563		0.1544	
N	390791		390791		432624		432624	

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects in a combined dataset with country-level variables and survey responses from all fortnightly survey waves (pooled cross-sections).

[a] R-squared calculated using simple instead of multiple imputations. Changes in R-squared values from Model 1 to 2 and 3 and Model 4 to 5 and 6 are smaller than 0.001. This is due to the large within-country cross-sectional variance (not explained by pandemic intensity or stringency) compared to variance over time. The pseudo-panel models (Table S23) indicate our time-varying covariates explain from 20% to 48% of variability over time.

Note: Sample sizes differ for each dependent variable because questions capturing the two potential mediators were added at different times (May 27th, 2020, for government evaluations; April 27th, 2020, for physical distancing).

Table S20 – Trends in psychological distress, life evaluations, and containment policies over time for mitigator and eliminator countries

Panel A: Mitigators vs. Eliminators

	Government Evaluation				Physical Distancing			
	Model 1		Model 2		Model 3		Model 4	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies								
Stringency index [a]	-0.285 (-0.592 to 0.023)	0.0655	-0.194 (-0.477 to 0.090)	0.1632	**1.877** **(1.585 to 2.168)**	<0.0001	**2.183** **(1.835 to 2.532)**	<0.0001
Eliminators * Stringency index [a]	-0.104 (-0.476 to 0.267)	0.5526	-0.154 (-0.512 to 0.203)	0.3665	-0.116 (-0.813 to 0.580)	0.7257	-0.484 (-0.125 to 0.238)	0.1728
Pandemic intensity								
Daily Covid deaths per 100k	0.004 (-0.136 to 0.143)	0.9526			**0.327** **(0.231 to 0.423)**	<0.0001		
Daily Covid cases per 100k			-0.002 (-0.005 to 0.000)	0.0816			**0.005** **(0.002 to 0.007)**	0.0006
R-squared	0.1907 [b]		0.1913 [b]		0.1563		0.1548	
N	307033		307033		432642		432642	

Panel B: Sweden vs. Other Nordic Countries

	Government Evaluation				Physical Distancing			
	Model 5		Model 6		Model 7		Model 8	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies								
Stringency index [a]	**-0.891** **(-1.496to -0.285)**	**0.0240**	**-1.061** **(-1.833 to -0.290)**	**0.0274**	1.551 (-1.653 to 4.756)	0.2211	2.217 (-0.539 to 4.973)	0.0832
Eliminators * Stringency index [a]	0.924 (-0.115 to 1.962)	0.0620	**1.073** **(0.398 to 1.747)**	**0.0207**	0.445 (-3.358 to 4.248)	0.7344	-0.065 (-3.698 to 3.567)	0.9579
Pandemic intensity								
Daily Covid deaths per 100k	-0.072 (-0.457 to 0.313)	0.5066			**0.458** **(-0.278 to 1.193)**	0.1422		
Daily Covid cases per 100k			-0.000 (-0.002 to 0.001)	0.5923			0.004 (-0.004 to 0.013)	0.1977
R-squared	0.1251 [b]		0.1250 [b]		0.1215		0.1193	
N	96409		96409		106485		106485	
Constant	Yes		Yes		Yes		Yes	
Contextual controls	Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes	
Country-fixed effects	Yes		Yes		Yes		Yes	
Linear trend	Yes		Yes		Yes		Yes	

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves (pooled cross-sections). Non-significant interaction terms suggest no differences in associations across country groupings.

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

Note: Sample sizes are different across dependent variables because government evaluation data is available from May 27th, 2020, while Physical distancing from April 27th, 2020.

Note: Stringency index coefficient represents the simple main effect of stringency for mitigator countries, i.e., when eliminator countries equal to zero.

2.8. Robustness checks of the association between government evaluation, physical distancing, and containment policies

Table S21 – Assessment of the functional form of the association between government evaluation, physical distancing, and containment policies

	Government Evaluation								Physical Distancing							
Panel A: Daily Deaths per 100k																
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies																
Stringency index [a]	-0.038 (-0.270 to 0.194)	0.7284	-0.034 (-0.274 to 0.207)	0.7688					**1.921 (1.651 to 2.191)**	<0.0001	**1.978 (1.634 to 2.323)**	<0.0001				
Stringency above median	**-0.123 (-0.241 to -0.004)**	0.0439	-0.118 (-0.243 to 0.006)	0.0605					0.038 (-0.055 to 0.130)	0.3958	0.002 (-0.124 to 0.127)	0.9784				
Stringency index* Stringency above median	0.346 (-0.564 to 1.256)	0.4245	0.377 (-0.405 to 1.159)	0.3150					-0.502 (-1.341 to 0.338)	0.2207	0.244 (-0.715 to 1.203)	0.5944				
Stringency index centered					-0.261 (-0.531 to 0.009)	0.0566	-0.191 (-0.449 to 0.066)	0.1314					**1.851 (1.565 to 2.138)**	<0.0001	**2.087 (1.774 to 2.400)**	<0.0001
Stringency index centered squared					0.623 (-1.181 to 2.426)	0.4673	0.763 (-1.404 to 2.930)	0.4587					0.380 (-1.774 to 2.534)	0.7107	1.001 (-0.675 to 2.677)	0.2211
Pandemic intensity																
Daily Covid deaths per 100k	**-0.043 (-0.127 to 0.041)**	0.2854			**-0.008 (-0.099 to 0.083)**	0.8468			**0.377 (0.237 to 0.518)**	<0.0001			**0.328 (0.211 to 0.445)**	<0.0001		
Daily Covid cases per 100k			**-0.002**	0.0106			**-0.002**	0.0320			**0.005**	0.0018			**0.005**	0.0009

	(-0.004 to -0.001)		(-0.004 to -0.000)		(0.002 to 0.007)		(0.002 to 0.007)
Contextual controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country-fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Linear trend	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-square	0.1914 [b]	0.1919 [b]	0.1903 [b]	0.1908 [b]	0,1566	0,1545	0.1563	0,1546
N	390791	390791	390791	390791	432624	432624	432624	432624

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves.

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

Note: Sample sizes are different across dependent variables because government evaluation data is available from May 27th, 2020, while Physical distancing from April 27th, 2020.

Note: Table S21 displays Table S19 results, considering potential nonlinearities in the associations with the Stringency index. In models 1-2 and 5-6 we have included the Stringency index, a dummy for the median value of stringency, and its product (piecewise regression). In models 3-4 and 7-8 we include the centered around the mean variable of stringency, and its squared term. In all models, the interaction or quadratic terms were not significant, indicating no support for nonlinear associations.

Table S22 – Robustness check of the association between government evaluation, physical distancing and containment policies with winsorized cases and deaths

	Government Evaluation				Physical Distancing			
	Model 1		Model 2		Model 3		Model 4	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies								
Stringency index [a]	**0.290** (-0.525 to -0.055)	0.0197	**-0.217** (-0.440 to -0.007)	0.0567	**1,799** (1.511 to 2.087)	<0.0001	**2,090** (1.767 to 2.412)	<0.0001
Pandemic intensity								
Daily Covid deaths per 100k	0.001 (-0.153 to 0.156)	0.9865			**0,396** (0.239 to 0.554)	0,0001		
Daily Covid cases per 100k			-0,002 (-0.004 to 0.000)	0.0650			**0,005** (0.002 to 0.007)	0,0005
Contextual controls	Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes	
Country-fixed effects	Yes		Yes		Yes		Yes	
Linear trend	Yes		Yes		Yes		Yes	
R-squared	0.1907 [b]		0.1913 [b]		0,1569		0,1544	
N	390791		390791		432624		432624	

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves.

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

Note: Sample sizes are different across dependent variables because government evaluation data is available from May 27th, 2020, while Physical distancing from April 27th, 2020.

Robustness checks of results in Table S19, including the winsorized variables of daily deaths and cases per 100k. The winsorization method replaces extreme values (above 99th percentile) by the 99th percentile value to control the influence of outliers. The relevant results, relative to the coefficient of the Stringency index hold.

Table S23 – Robustness check of the association between government evaluation, physical distancing, and containment policies using pseudo-panels

| | Government Evaluation | | | | Physical Distancing | | | |
| | Model 1 | | Model 2 | | Model 3 | | Model 4 | |
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies								
Stringency index [a]	**-0.353**	0.0124	-0.266	0.0283	**1.955**	<0.0001	**2.188**	<0.0001
	(-0.617 to -0.089)		(-0.498 to -0.033)		**(1.684 to 2.266)**		**(1.859 to 2.516)**	
Pandemic intensity								
Daily Covid deaths per 100k	0.001	0.9804			**0.308**	<0.0001		
	(-0.126 to 0.129)				**(0.217 to 0.399)**			
Daily Covid cases per 100k			-0.002	0.0514			**0.004**	0.0009
			(-0.004 to 0.000)				**(0.002 to 0.007)**	
Constant	Yes		Yes		Yes		Yes	
Individual controls	No		No		No		No	
Country-fixed effects	Yes		Yes		Yes		Yes	
Cohort-fixed effects	Yes		Yes		Yes		Yes	
Linear trend	Yes		Yes		Yes		Yes	
R-squared within	0.2048		0.2207		0.4793		0.4776	
R-squared	0.7184		0.7222		0.5983		0.5969	
N	5.063		5.063		5.546		5.546	

95% Confidence Intervals with clustered standard errors.

Robustness check of results in Table S19 using pseudo-panels. Pseudo-panels cohorts were defined by the interaction of 10-year age ranges, gender and country. Time was divided in 15-day periods. R2 are higher in pseudo panel models as pseudo-panel fixed effects capture most of cross-sectional variability.

[a] Rescaled to the 0-1 range.

Note: Sample sizes are different across dependent variables because government evaluation data is available from May 27th, 2020, while Physical distancing from April 27th, 2020.

Table S24 – Robustness checks of the association between mental health, and life satisfaction, and containment policies with cases and deaths combined as covariates

	Government Evaluation		Physical Distancing	
	Model 1		Model 2	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies				
Stringency index [a]	**-0.284** **(-0.510 to -0.058)**	0.0177	**1.845** **(1.561 to 2.129)**	<0.0001
Pandemic intensity				
Daily Covid deaths per 100k	0.086 (-0.035 to 0.208)	0.1495	**0.276** **(0.130 to 0.423)**	0.0012
Daily Covid cases per 100k	**-0.003** **(-0.004 to -0.001)**	0.0033	0.002 (-0.002 to 0.006)	0.2396
Contextual controls	Yes		Yes	
Individual controls	Yes		Yes	
Country-fixed effects	Yes		Yes	
Linear trend	Yes		Yes	
R-squared	0.1915 [b]		0.1567	
N	390791		432624	

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves.

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

Robustness checks of results in Table S19, including both cases and deaths per 100k as covariates in the same regression. The correlation between the two variables is r=0.61. The relevant results, relative to the coefficient of the Stringency index and pandemic intensity hold.

Table S25 – Association between government evaluation, physical distancing, and containment policies using post-hoc stratification survey weights

	Government Evaluation				Physical Distancing			
	Model 1		Model 2		Model 3		Model 4	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies								
Stringency index [a]	**-0.293** (**-0.531 to -0.056**)	0.0213	-0.222 (-0.445 to 0.001)	0.051	**1.827** (**1.548 to 2.106**)	<0.0001	**2.072** (**1.753 to 2.390**)	<0.0001
Pandemic intensity								
Daily Covid deaths per 100k	-0.002 (-0.124 to 0.119)	0.971			**0.330** (**0.228 to 0.433**)	<0.0001		
Daily Covid cases per 100k			-0.002 (-0.004 to 0.000)	0.053			**0.005** (**0.002 to 0.007**)	0.0006
Constant	Yes		Yes		Yes		Yes	
Contextual controls	Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes	
Country-fixed effects	Yes		Yes		Yes		Yes	
Linear trend	Yes		Yes		Yes		Yes	
R-square	0.1927 [b]		0.1933 [b]		0.1544		0.1525	
N	390791		390791		432624		432624	

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves.

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

Note: Sample sizes are different across dependent variables because government evaluation data is available from May 27th, 2020, while Physical distancing from April 27th, 2020.

Robustness checks of results in Table S19 using post-stratification weights calculated by YouGov to account for small deviations from the sampling plan in data collection. All results hold with negligible changes in coefficients.

Table S26 – Association between government evaluation, physical distancing, and containment policies using two-way fixed effects

	Government Evaluation				Physical Distancing			
	Model 1		Model 2		Model 3		Model 4	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies								
Stringency index [a]	**-0.535**	0.0010	**-0.490**	0.0011	**1,379**	<0.0001	**1,369**	<0.0001
	(-0.806 to -0.264)		(-0.740 to -0.240)		(0.952 to 1.807)		(1.006 to 1.732)	
Pandemic intensity								
Daily Covid deaths per 100k	-0.081	0.1894			**0.202**	0.0065		
	(-0.207 to 0.046)				(0.066 to 0.338)			
Daily Covid cases per 100k			**-0.003**	0.0053			**0.005**	0.0062
			(-0.005 to -0.001)				(0.002 to 0.008)	
Constant	Yes		Yes		Yes		Yes	
Contextual controls	Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes	
Time-fixed effects	Yes		Yes		Yes		Yes	
Country-fixed effects	Yes		Yes		Yes		Yes	
Linear trend	Yes		Yes		Yes		Yes	
R-square	0.1948 [b]		0.1955 [b]		0.1650		0.1650	
N	390791		390791		432624		432624	

95% Confidence Intervals with clustered standard errors.

Estimates using pooled cross-sections.

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

Note: Sample sizes are different across dependent variables because government evaluation data is available from May 27th, 2020, while Physical distancing from April 27th, 2020.

2.9. Association of mental health and policy stringency mediated by government evaluation and physical distancing

Association between potential mediators and dependent variables
 i) Observed physical distancing
As estimated based on pooled cross-section models, observed physical distancing was positively associated with psychological distress and negatively associated with life evaluations (Table S27), suggesting that physical distancing harms mental health. Coefficients were not significantly different between mitigators and eliminators in any of the above models (Table S29).

These findings are consistent with the possibility of mediation. The indirect association suggests that greater policy stringency is linked to more psychological distress through physical distancing in both pooled cross-sections and pseudo-panel data. For life satisfaction this indirect association was significant only in pooled cross-sections (see Supplementary Material Table S30).

Altogether, these findings support the possibility that observed physical distancing served as a channel between stringency and mental health; the more people physically distanced themselves in response to containment policies, the more their mental health may have suffered.

ii) Government evaluation
Mental health was better when governments were perceived to be handling the pandemic well. Table 3 shows that psychological distress was lower and life evaluations were higher when the government was perceived as handling the pandemic adequately. Results were confirmed with the pseudo-panel analysis for life satisfaction, but not for psychological distress. Coefficients were not significantly different between mitigators and eliminators in these models (see Supplementary Material Table S29).

Once again, the data are consistent with the possibility of mediation. The indirect association suggests that greater policy stringency was associated with higher psychological distress and lower well-being through government evaluations in both pseudo-panels and repeated cross-section models.

In sum, more stringent policies were associated with lower evaluations of government action in the pandemic. Positive government evaluations were associated with better mental health. Thus, more stringent policies were associated with better mental health ratings when evaluations support the government's handling of the pandemic. Again, results remain consistent with a set of robustness checks, presented in section 2.10 of this appendix.

Table S27 – Association between psychological distress, life satisfaction, containment policies, potential mediators, and indirect associations.

	Psychological distress				Life evaluations			
Panel A: Association between psychological distress, life satisfaction, containment policies, and potential mediators								
	Model 1		**Model 2**		**Model 3**		**Model 4**	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies								
Stringency index	-0.048 (-0.120 to 0.023)	0.1662	-0.029 (-0.084 to 0.025)	0.2635	**0.125 (0.031 to 0.218)**	0.0130	0.095 (-0.018 to 0.208)	0.0922
Pandemic intensity								
Daily Covid deaths per 100k inhabitants	**0.032 (0.012 to 0.052)**	0.0050			-0.071 (-0.150 to 0.008)	0.0734		
Daily Covid cases per 100k inhabitants			**0.000 (0.000 to 0.001)**	0.0260			**-0.001 (-0.003 to -0.000)**	0.0294
Mediators								
Government evaluation	**-0.104 (-0.120 to -0.088)**	<0.0001	**-0.104 (-0.120 to -0.088)**	<0.0001	**0.287 (0.234 to 0.340)**	<0.0001	**0.286 (0.233 to 0.340)**	<0.0001
Physical distancing	**0.063 (0.046 to 0.080)**	<0.0001	**0.063 (0.046 to 0.080)**	<0.0001	**-0.057 (-0.087 to -0.027)**	0.0012	**-0.057 (-0.087 to -0.027)**	0.0014
Constant	**2.054 (1.961 to 2.146)**	<0.0001	**2.044 (1.950 to 2.138)**	<0.0001	**5.365 (5.134 to 5.596)**	<0.0001	**5,.80 (5.153 to 5.606)**	<0.0001
Contextual controls	Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes	
Country-fixed effects	Yes		Yes		Yes		Yes	
Linear trend	Yes		Yes		Yes		Yes	
R-squared	0.1694 [b]		0.1694 [b]		0.1583 [b]		0.1583 [b]	
N	390791		390791		390791		390791	

Panel B: Indirect Associations

	Government Evaluation			
	Model 5	**Model 6**	**Model 7**	**Model 8**
	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)
Indirect Associations	0.033 (0.011 to 0.057)	0.022 (0.002 to 0.042)	-0.104 (-0.180 to -0.033)	-0.069 (-0.133 to -0.007)
	Physical Distancing			
	Model 9	**Model 10**	**Model 11**	**Model 12**
	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)	Coefficient (95% CI)
Indirect Associations	0.122 (0.089 to 0.161)	0.133 (0.096 to 0.176)	-0.111 (-0.165 to -0.059)	-0.120 (-0.180 to -0.067)

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves (pooled cross sections).

[a] R-squared calculated using simple instead of multiple imputations.

Note: Observations before May 27th, 2020, not included due to missing data on government evaluation.

Panel B: Standard errors are clustered at the country level. Bootstrapped coefficients and confidence intervals are reported in the table. Due to issues in convergence of the bootstrapped mediation models with all covariates, the indirect effects for the pooled cross-sections were estimated in two steps. First, the mental health variables and mediators were individually regressed onto all the individual level covariates. The residuals from these regressions were used with controls for pandemic intensity, and people vaccinated per 100 to estimate the bootstrapped indirect associations.

Changes in R-squared values from Model 1 to 2 and 3 and Model 4 to 5 and 6 are smaller than 0.001. This is due to the large within-country cross-sectional variance (not explained by pandemic intensity or stringency) compared to variance over time. The pseudo-panel models (Table S29) indicate that our time-varying covariates explain from 1.8% to 3.7% of variability over time.

Table S28 – Association between psychological distress, life satisfaction, containment policies, and potential mediators across mitigator and eliminator countries

	Psychological distress				Life evaluations			
Panel A: Mitigators vs. Eliminators								
	Model 1		**Model 2**		**Model 3**		**Model 4**	
	Coefficient (95% CI)	**P-value**	**Coefficient (95% CI)**	**P-value**	**Coefficient (95% CI)**	**P-value**	**Coefficient (95% CI)**	**P-value**
Mediators								
Government evaluation	**-0.103** **(-0.120 to -0.0856)**	<0.0001	**-0.102** **(-0.120 to -0.0855)**	<0.0001	**0.273** **(0.226 to 0.320)**	<0.0001	**0.273** **(0.225 to 0.320)**	<0.0001
Government evaluation*Eliminators	-0.011 (-0.058 to 0.037)	0.6346	-0.011 (-0.058 to 0.036)	0.6302	0.084 (-0.070 to 0.237)	0.2528	0.084 (-0.069 to 0.237)	0.254
Physical distancing	**0.069** **(0.054 to 0.084)**	<0.0001	**0.069** **(0.054 to 0.084)**	<0.0001	**-0.070** **(-0.090 to -0.050)**	<0.0001	**-0.070** **(-0.091 to -0.050)**	<0.0001
Physical distancing*Eliminators	-0.029 (-0.091 to 0.033)	0.3284	-0.030 (-0.092 to 0.033)	0.3209	0.063 (-0.076 to 0.203)	0.3414	0.065 (-0.075 to 0.204)	0.334
	Psychological distress				Life evaluations			
Panel B: Sweden vs. Other Nordic Countries								
	Model 1		**Model 2**		**Model 3**		**Model 4**	
	Coefficient (95% CI)	**P-value**	**Coefficient (95% CI)**	**P-value**	**Coefficient (95% CI)**	**P-value**	**Coefficient (95% CI)**	**P-value**
Mediators								
Government evaluation	-0.080 (-41.894 to -41.737)	0.3387	-0.080 (-55.724 to 55.564)	0.2847	**0.276** **(0.061 to 0.392)**	0.0262	0.275 (-1.891 to 2.441)	0.1146

Government evaluation*Eliminators	-0.039 (-0.146 to 0.067)	0.2511	-0.040 (-0.148 to 0.068)	0.2475	0.026 (-0.204 to 0.255)	0.6781	0.028 (-0.208 to 0.263)	0.6635
Physical distancing	**0.053 (0.035 to 0.071)**	0.0120	**0.052 (0.032 to 0.071)**	0.0153	**-0.057 (-0.097 to -0.017)**	0.0258	**-0.054 (-0.097 to -0.011)**	0.0331
Physical distancing*Eliminators	0.013 (-0.011 to 0.038)	0.1215	0.015 (-0.008 to 0.039)	0.0952	-0.013 (-0.080 to 0.053)	0.4753	-0.017 (-0.075 to 0.041)	0.3289
Stringency index	Yes		Yes		Yes		Yes	
Daily deaths per 100k as control	Yes		No		Yes		No	
Daily cases per 100k as control	No		Yes		No		Yes	
Contextual controls	Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes	
Country-fixed effects	Yes		Yes		Yes		Yes	
Linear trend	Yes		Yes		Yes		Yes	
R-squared	0.1694 [b]		0.1694 [b]		0.1583 [b]		0.1583 [b]	
N	390791		390791		390791		390791	

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves. Non-significant interaction coefficients suggest no differences in associations across country-groupings

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

Note: Observations before May 27th, 2020, not included due to missing data on government evaluation.

Note: Government evaluation and Physical distancing coefficients represents the simple main effect of mediators for mitigator countries, i.e., when eliminator countries equal to zero.

2.10. Robustness checks of the association of stringency and mental health mediated by government evaluation and physical distancing

Table S29 – Robustness check of the association between mental health, life satisfaction, containment policies, and mediators using pseudo-panels

	Psychological distress				Life evaluations			
	Model 1		Model 2		Model 3		Model 4	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies								
Stringency index [a]	-0.009 (-0.086 to 0.069)	0.8149	0.010 (-0.066 to 0.085)	0.7890	0.021 (-0.132 to 0.173)	0.7765	-0.021 (-0.188 to 0.147)	0.7955
Pandemic intensity								
Daily Covid deaths per 100k inhabitants	**0.041 (0.018 to 0.063)**	0.0020			**-0.092 (-.178 to -0.005)**	0.0389		
Daily Covid cases per 100k inhabitants			**0.001 (0.000 to 0.001)**	0.0011			**-0.002 (-0.003 to -0.001)**	0.0078
Mediators								
Government evaluation	-0.030 (-0.077 to 0.017)	0.1914	-0.022 (-0.070 to 0.026)	0.3480	**0.165 (0.083 to 0.246)**	0.007	**0.147 (0.052 to 0.239)**	0.0046
Physical distancing	**0.038 (0.008 to 0.067)**	0.0150	**0.038 (0.011 to 0.065)**	0.0096	-0.038 (-.103 to 0.026)	0.2239	-0.039 (-0.096 to 0.018)	0.1617
Contextual controls	Yes		Yes		Yes		Yes	
Individual controls	No		No		No		No	
Country-fixed effects	No		No		No		No	
Cohort-fixed effects	Yes		Yes		Yes		Yes	
Linear trend	Yes		Yes		Yes		Yes	
R-squared within	0.0369		0.0364		0.0182		0.0187	
R-squared	0.876		0.876		0.835		0.836	
N	5062		5062		5063		5063	

95% Confidence Intervals with clustered standard errors.

Robustness checks of results in Table S27 using pseudo-panels. Pseudo-panels cohorts were defined by the interaction of 10-year age ranges, gender and country. Time was divided in 15-day periods. R2 are higher in pseudo panel models as pseudo-panel fixed effects capture most of cross-sectional variability.

[a] Rescaled to the 0-1 range.

Table S30 – Robustness check of indirect associations

	Psychological distress				Life evaluation			
	Government Evaluation		Physical distancing		Government Evaluation		Physical distancing	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Pooled Cross-Sections								
Indirect associations	**0.033**	**0.022**	**0.122**	**.0133**	**-0.104**	**-0.069**	**-0.111**	**-0.120**
Confidence interval (95%)	**(.011 to .057)**	**(.002 to .042)**	**(.089 to .161)**	**(.096 to .176)**	**(-.180 to -033)**	**(-.133 to -.007)**	**(-.165 to -.059)**	**(-.180 to -.067)**
N	385551	385551	385551	385551	387033	387033	387033	387033
	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15	Model 16
Pseudo-Panels								
Indirect associations	**0.025**	**0.021**	**0.116**	**.0122**	**-0.063**	**-0.053**	-0.057	-0.053
Confidence interval (95%)	**(.004 to .053)**	**(.003 to .045)**	**(.034 to .216)**	**(.042 to .214)**	**(-.125 to -.011)**	**(-.109 to -.008)**	(-.202 to .100)	(-.197 to .108)
N	5062	5062	5062	5062	5063	5063	5063	5063
Control for daily deaths 100k	Yes	No	Yes	No	Yes	No	Yes	No
Control for daily cases 100k	No	Yes	No	Yes	No	Yes	No	Yes
Linear trend	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Standard errors are clustered at the country level. Bootstrapped coefficients and confidence intervals are reported in the table.

Note: Observations before May 27th, 2020, not included due to missing data on government evaluation. Pooled cross-sections (Panel A) include contextual, country, and individual controls. Pseudo-panels (Panel B) cohorts were defined by the interaction of 10-year age ranges, gender and country, and include contextual, cohort, and country fixed-effects controls. Time was divided in 15-day periods.

Due to issues in convergence of the bootstrapped mediation models with all covariates, the indirect effects for the pooled cross-sections were estimated in two steps. First, the mental health variables and mediators were individually regressed onto all the individual level covariates. The residuals from these regressions were used with controls for pandemic intensity, and people vaccinated per 100 to estimate the bootstrapped indirect effects.

Table S31 – Assessment of the functional form of association between psychological distress, life satisfaction, containment policies, and potential mediators

	Psychological distress								Life evaluations							
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7		Model 8	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies																
Stringency index [a]	0.025 (-0.066 to 0.116)	0.5584	0.029 (-0.067 to 0.125)	0.5244					0.135 (-0.045 to 0.314)	0.1276	0.134 (-0.044 to 0.311)	0.1271				
Stringency above median	-0.025 (-0.056 to 0.007)	0.1128	-0.028 (-0.057 to 0.000)	0.0529					0.035 (-0.011 to 0.081)	0.1216	0.039 (-0.004 to 0.083)	0.0736				
Stringency index* Stringency above median	-0.006 (-0.373 to 0.362)	0.9725	0.052 (-0.206 to 0.311)	0.6673					-0.352 (-0.852 to 0.149)	0.1520	-0.374 (-0.855 to 0.108)	0.1169				
Stringency index centered					-0.055 (-0.128 to 0.018)	0.1283	-0.030 (-0.089 to 0.029)	0.2870					0.104 (-0.017 to 0.224)	0.0850	0.075 (-0.066 to 0.215)	0.2698
Stringency index centered squared					-0.086 (-0.707 to 0.504)	0.7675	0.028 (-0.681 to 0.738)	0.9318					-0.426 (-1.389 to 0.538)	0.3558	-0.559 (-1.807 to 0.608)	0.3017
Pandemic intensity																
Daily Covid deaths per 100k	0.030 (-0.019 to 0.079)	0.2119			**0.034 (0.010 to 0.058)**	0.0103			-0.035 (-0.077 to 0.007)	0.0933			-0.063 (-0.129 to 0.002)	0.0576		
Daily Covid cases per 100k			**0.000 (0.000 to 0.001)**	0.0272			**0.000 (0.000 to 0.001)**	0.0224			**-0.001 (-0.002 to -0.000)**	0.0114			**-0.001 (-0.002 to -0.000)**	0.0173

Mediators	Model 1	p	Model 2	p	Model 3	p	Model 4	p	Model 5	p	Model 6	p	Model 7	p	Model 8	p
Government evaluation	**-0.105** (**-0.120 to -0.089**)	<0.0001	**-0.104** (**-0.120 to -0.089**)	<0.0001	**-0.104** (**-0.120 to -0.089**)	<0.0001	**-0.104** (**-0.120 to -0.089**)	<0.0001	**0.288** (**0.235 to 0.340**)	<0.0001	**0.287** (**0.234 to 0.340**)	<0.0001	**0.287** (**0.234 to 0.340**)	<0.0001	**0.287** (**0.234 to 0.340**)	<0.0001
Physical distancing	**0.063** (**0.046 to 0.080**)	<0.0001	**0.063** (**0.046 to 0.080**)	<0.0001	**0.063** (**0.046 to 0.080**)	<0.0001	**0.063** (**0.046 to 0.080**)	<0.0001	**-0.057** (**-0.087 to -0.027**)	0.0012	**-0.057** (**-0.087 to -0.027**)	0.0013	**-0.057** (**-0.087 to -0.027**)	0.0012	**-0.057** (**-0.087 to -0.027**)	0.0013
Contextual controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Country-fixed effects	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Linear trend	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
R-squared	0.1694 [b]		0.1695 [b]		0.1694 [b]		0.1694 [b]		0.1583 [b]		0.1583 [b]		0.1583 [b]		0.1583 [b]	
N	390791		390791		390791		390791		390791		390791		390791		390791	

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves.

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

Note: Observations before May 27th, 2020, not included due to missing data on government evaluation.

Note: Table S31 displays Table S27 results, considering potential nonlinearities in the associations with the Stringency index. In models 1-2 and 5-6 we have included the Stringency index, a dummy for the median value of stringency, and its product (piecewise regression). In models 3-4 and 7-8 we include the centered around the mean variable of stringency, and its squared term. In all models, the interaction or quadratic terms were not significant, indicating no support for nonlinear associations.

Table S32– Robustness check of the association between mental health, life satisfaction, containment policies, and mediators with winsorized cases and deaths

	Pooled cross-sections							
	Psychological distress				Life evaluations			
	Model 1		Model 2		Model 3		Model 4	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies								
Stringency index [a]	-0.051 (-0.121 to 0.019)	0.1416	**-0.031 (-0.085 to 0.022)**	0.2209	**0.116 (0.024 to 0.209)**	0.0175	0.095 (-0.019 to 0.208)	0.0935
Pandemic intensity								
Daily Covid deaths per 100k inhabitants	**0.034 (0.008 to 0.061)**	0.0145			-0.067 (-0.163 to 0.028)	0.1510		
Daily Covid cases per 100k inhabitants			**0.000 (0.000 to 0.001)**	0.0291			**-0,001 (-0.003 to -0.000)**	0.0308
Mediators								
Government evaluation	**-0.104 (-0.120 to -0.088)**	<0.0001	**-0.104 (-0.120 to -0.088)**	<0.0001	**0.287 (0.234 to 0.341)**	<0.0001	**0.287 (0.233 to 0.341)**	<0.0001
Physical distancing	**0.063 (0.046 to 0.080)**	<0.0001	**0.063 (0.046 to 0.080)**	<0.0001	**-0.057 (-0.087 to -0.027)**	0.0012	**-0,061 (-0.090 to -0.032)**	0.0013
Contextual controls	Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes	
Country-fixed effects	Yes		Yes		Yes		Yes	
Linear trend	Yes		Yes		Yes		Yes	
R-squared	0.1694 [b]		0.1694 [b]		0.1583 [b]		0.1583 b	
N	390791		390791		390791		390791	

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves.

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

Note: Observations before May 27th, 2020, not included due to missing data on government evaluation.
Robustness checks of results in Table S27 include the winsorized variables of daily deaths and cases per 100k. The winsorization method replaces extreme values (above 99th percentile), by the 99th percentile value. The relevant results, relative to the coefficient of mediators hold.

Table S33– Robustness check of the association between mental health, life satisfaction, containment policies, and mediators with cases and deaths combined as covariates

	Pooled cross-sections			
	Psychological distress		Life Evaluations	
	Model 1		Model 2	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies				
Stringency index [a]	-0.051 (-0.118 to 0.016)	0.1208	**0.128** **(0.031 to 0.224)**	0.0138
Pandemic intensity				
Daily Covid deaths per 100k inhabitants	**0.026** **(0.003 to 0.049)**	0.0285	-0.042 (-0.121 to 0.037)	0.2717
Daily Covid cases per 100k inhabitants	0.000 (-0.000 to 0.001)	0.2734	**-0.001** **(-0.002 to -0.000)**	0.0461
Mediators				
Government evaluation	**-0.104** **(-0.120 to -0.088)**	<0.0001	**0.287** **(0.233 to 0.341)**	<0.0001
Physical distancing	**0.063** **(0.046 to 0.080)**	<0.0001	**-0.057** **(-0.087 to -0.027)**	0.0013
Contextual controls	Yes		Yes	
Individual controls	Yes		Yes	
Country-fixed effects	Yes		Yes	
Linear trend	Yes		Yes	
R-squared	0.1694 [b]		0.1583 [b]	
N	390791		390791	

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves.

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

Note: Observations before May 27th, 2020, not included due to missing data on government evaluation.

Robustness checks of results in Table S27, including both cases and deaths per 100k as covariates in the same regression. The correlation between the two variables is r=0.61. The relevant results, relative to the coefficient of the Stringency index and pandemic intensity hold.

Table S34 – Robustness check of the association between mental health, life satisfaction, containment policies, and mediators with quartile imputations of PHQ-4

	Psychological distress Missing replaced by percentile 25											
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies												
Stringency index [a]	0.041 (-0.103 to 0.186)	0.5454	-0.006 (-0.180 to 0.168)	0.9455	0.023 (-0.110 to 0.156)	0.7118	**-0.069 (-0.135 to -0.003)**	**0.0410**	**-0.100 (-0.158 to -0.041)**	0.0029	**-0.081 (-0.137 to -0.025)**	0.0080
Pandemic intensity												
Daily Covid deaths per 100k inhabitants			**0.043 (0.008 to 0.077)**	0.0205					**0,028 (0.001 to 0.054)**	0.0442		
Daily Covid cases per 100k inhabitants					0.001 (-0.000 to 0.001)	0.0650					0.000 (-0.000 to 0.001)	0.1997
Mediators												
Government evaluation	**-0.094 (-0.110 to -0.079)**	<0.0001	**-0.094 (-0.110 to -0.079)**	<0.0001	**-0.094 (-0.109 to -0.079)**	<0.0001	**-0.096 (-0.113 to -0.080)**	<0.0001	**-0.096 (-0.113 to -0.080)**	<0.0001	**-0.096 (-0.113 to -0.080)**	<0.0001
Physical distancing	**0.066 (0.050 to 0.082)**	<0.0001	**0.066 (0.050 to 0.082)**	<0.0001	**0.066 (0.050 to 0.082)**	<0.0001	**0.062 (0.045 to 0.079)**	<0.0001	**0.062 (0.045 to 0.079)**	<0.0001	**0.062 (0.045 to 0.079)**	<0.0001
Country fixed-effects	Yes											
R-squared	0.1701 [b]		0.1702 [b]		0.1702 [b]		0.1691 [b]		0.1691 [b]		0.1691 [b]	
N	390791		390791		390791		390791		390791		390791	

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves.

[a] Rescaled to the 0-1 range.

Robustness check of results in Table S27, considering the possibility of non-randomness in PHQ-4 missing data. We replace missing values of psychological distress by the 1st quartile (models 1-3) and 3rd quartile (models 4-6). The average life evaluation score of individuals with missing psychological distress is slightly lower than those without missing data (M = 6.04 vs. M = 6.25, p<.001). This average is located slightly below the mean of the whole sample (mean=6.24, 1Q =5, 3Q=8). Besides, approximately half (51.11%) of the respondents with missing in psychological distress scored below the median value of the whole sample for life evaluations, and 19.66% below the first quartile. In other words, although these individuals did not report psychological distress information, they do not seem to belong to the lower end of the distribution of life evaluations. We then replace the missing values of psychological distress by its both quartile values, in a conservative test. Main results remain unaltered.

Table S35 – Robustness check of the association between psychological distress, life satisfaction, containment policies, and potential mediators using post-hoc stratification survey weights

	Psychological distress				Life evaluations			
	Model 1		Model 2		Model 3		Model 4	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies								
Stringency index [a]	-0.049	0.1427	-0.028	0.2635	**0.121**	0.0096	0.097	0.0679
	(-0.116 to 0.019)		(-0.080 to 0.024)	0.2689	**(0.035 to 0.208)**		(-0.008 to 0.203)	
Pandemic intensity								
Daily Covid deaths per 100k inhabitants	**0.034**	0.0032			-0.067	0.0839		
	(0.014 to 0.054)				(-0.144 to 0.010)			
Daily Covid cases per 100k inhabitants			**0.000**	0.0157			**-0.001**	0.0245
			(0.000 to 0.001)				**(-0.003 to -0.000)**	
Mediators								
Government evaluation	**-0.104**	<0.0001	**-0.104**	<0.0001	**0.288**	<0.0001	**0.287**	<0.0001
	(-0.120 to -0.089)		**(-0.120 to -0.089)**		**(0.235 to 0.341)**		**(0.234 to 0.340)**	
Physical distancing	**0.062**	<0.0001	**0.062**	<0.0001	**-0.054**	0.0012	**-0.054**	0.0013
	(0.046 to 0.079)		**(0.046 to 0.079)**		**(-0.082 to -0.026)**		**(-0.082 to -0.026)**	
Contextual controls	Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes	
Country-fixed effects	Yes		Yes		Yes		Yes	
Linear trend	Yes		Yes		Yes		Yes	
R-squared	0.1696 [b]		0.1696 [b]		0.1610 [b]		0.1610 [b]	
N	390791		390791		390791		390791	

95% Confidence Intervals with clustered standard errors.

Coefficients were estimated using linear regression models with country fixed-effects from a combined dataset of country-level variables and survey responses from all fortnightly survey waves.

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

Note: Observations before May 27th, 2020, not included due to missing data on government evaluation.
Robustness checks of results in Table S27 using post-stratification weights calculated by YouGov to account for small deviations from the sampling plan in data collection. All results hold with negligible changes in coefficients.

Table S36 – Association between psychological distress, life satisfaction, containment policies, and potential mediators using two-way fixed effects

	Psychological distress				Life evaluations			
	Model 1		Model 2		Model 3		Model 4	
	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value	Coefficient (95% CI)	P-value
Containment policies								
Stringency index [a]	-0.056 (-0.115 to 0.003)	0.0611	-0.047 (-0.102 to 0.009)	0.0906	**0.204 (0.125 to 0.283)**	0.0001	0.190 (0.118 to 0.261)	0.0001
Pandemic intensity								
Daily Covid deaths per 100k inhabitants	**0.019 (0.003 to 0.036)**	0.0243			-0.057 (-0.141 to 0.026)	0.161		
Daily Covid cases per 100k inhabitants			0.000 (-0.000 to 0.001)	0.3032			-0.001 (-0.002 to 0.000)	0.1526
Mediators								
Government evaluation	**-0.102 (-0.118 to -0.086)**	<0.0001	**-0.102 (-0.118 to -0.086)**	<0.0001	**0.300 (0.245 to 0.354)**	<0.0001	**0.299 (0.245 to 0.354)**	<0.0001
Physical distancing	**0.063 (0.046 to 0.080)**	<0.0001	**0.063 (0.046 to 0.080)**	<0.0001	**-0.060 (-0.088 to -0.031)**	0.0005	**-0.060 (-0.088 to -0.031)**	0.0005
Contextual controls	Yes		Yes		Yes		Yes	
Individual controls	Yes		Yes		Yes		Yes	
Country-fixed effects	Yes		Yes		Yes		Yes	
Time-fixed effects	Yes		Yes		Yes		Yes	
Linear trend	Yes		Yes		Yes		Yes	
R-squared	0.1698 [b]		0.1697 [b]		0.1610 [b]		0.1610 [b]	
N	390791		390791		390791		390791	

95% Confidence Intervals with clustered standard errors.

Estimates using pooled cross-sections.

[a] Rescaled to the 0-1 range.

[b] R-squared calculated using simple instead of multiple imputations.

Note: Observations before May 27th, 2020, not included due to missing data on government evaluation.

## 2.11. Association of stringency and mental health through reduction in future deaths

Our independent variables policy stringency and pandemic intensity are not only correlated but are woven into a complex network of bidirectional causality. A simple exploratory analysis of our data considering correlations between different lags of stringency and pandemic intensity illustrates that there are two feedback loops between these variables a) past pandemic intensity prompts a reaction in terms of current policy stringency and b) current policy stringency is associated with future deaths.

Figure S6 illustrates these associations by showing the correlations between current pandemic intensity and lagged stringency in the right-hand side (positive lags) and current stringency and lagged pandemic intensity in the left (negative lags). There is a clear association between the growth of deaths and cases and responses in terms of policy change in such a way that policy stringency is increased after a few weeks of growth in pandemic intensity. Similarly, increases in policy stringency reduce the growth in cases and deaths. These associations are reflected also when considering the levels rather than growth rates. The short lags still show a positive association as more stringent policies first decelerate the growth of pandemic intensity before eventually leading to a lower level.

The feedback of past pandemic intensity on current stringency is not modelled further by us, since it concerns the decision process of policymakers, which we treat as pre-determined. On the other hand, the effects of stringency on future pandemic intensity are needed to support a dynamic analysis of the overall impacts of stringency on mental health.

The models presented in the manuscript estimate the contemporaneous associations between policy stringency and mental health/life satisfaction. However, they do not account for a second possible path of this association: the indirect effects of current stringency on mental health through the reduction in future deaths. To evaluate this component, two relations must be estimated a) the effects of stringency on pandemic intensity and b) the association of pandemic intensity and mental health. While b) is already assessed in our previous models, a) demands some more complex modelling that has been done elsewhere.[5]

Figure S6 – Cross correlograms of Stringency index with growth and deaths variables in levels and centered around country mean

A. Deaths (centered)
B. Cases (centered)
C. Growth in Deaths
D. Growth in Cases
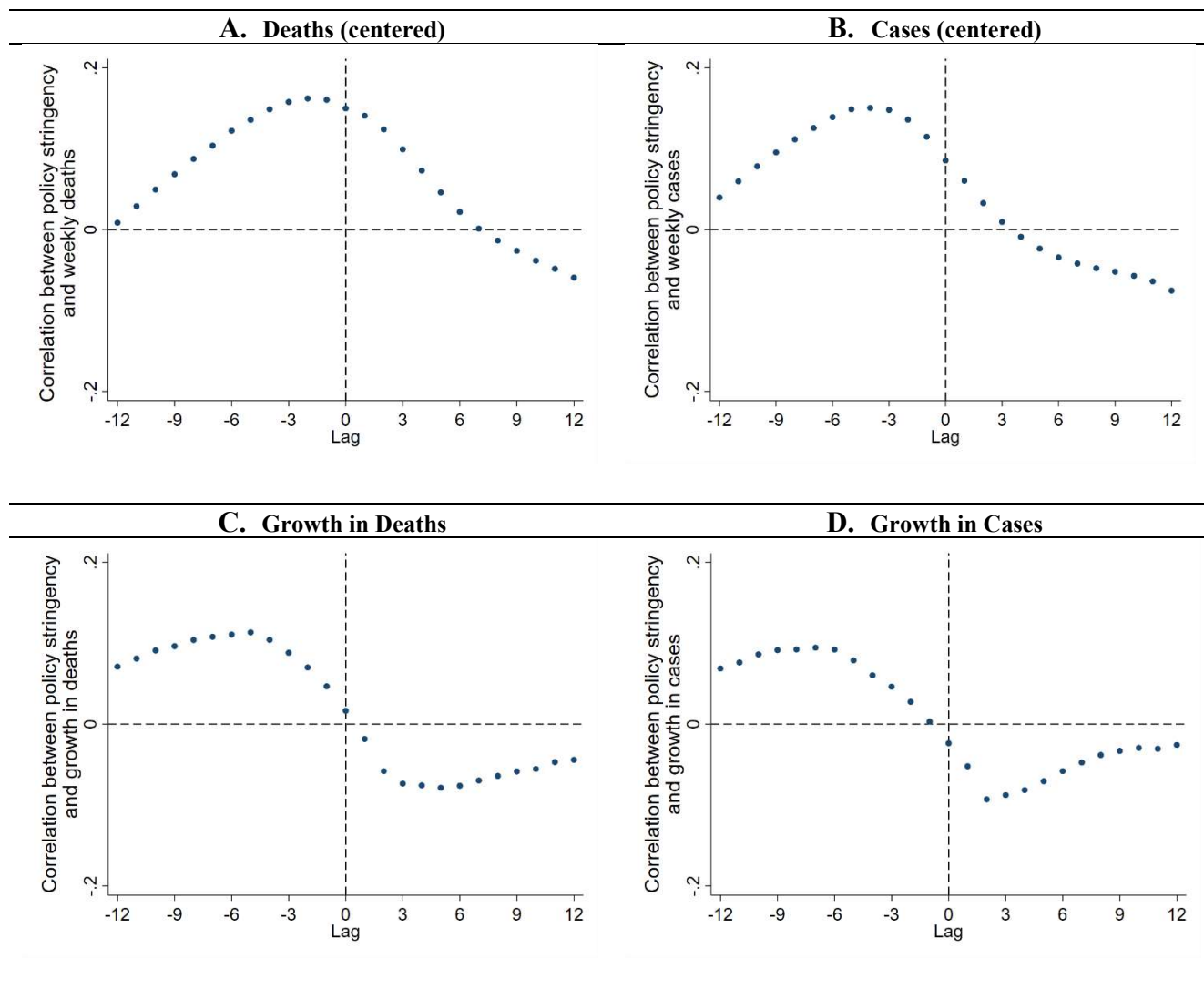
As an estimate of a) we use Hale et al (2021) model that relates deaths to the Stringency index,[5] formally:

$$Log\_daily\_deaths_{it} = \beta_1 stringency\_lag28_{it} + \beta_2 log\_daily\_deaths\_lag28_{it} + \beta_3 time_{it} + \Phi + \varepsilon_{it} \text{ (Model 1)}$$

Where time is the number of days since January 2020 and Φ are country fixed-effects.

For the overall sample, their point estimates are: β_1 = -0·6 (adjusted from -0·006 as they use stringency in a 1-100 range rather than our rescaled 0-1 version), β_2 = 0·458 and β_3=0·00117.

The effect of stringency on deaths is not limited to the channel of the 28-day lag direct effect, but also propagates for longer periods through changes in lagged deaths. An increase in policy stringency from zero to one would reduce the log of daily deaths 28 days later by 0.6 or 45%, augmented by a further reduction of 0.458*0.6 28 days on, and of 0.458*0.458*0.6 28 days later. We estimated the total effect of stringency on the log of deaths k cycles of 28 days after a unitary stringency change (S_k), considering the direct effects of changes of stringency on the log of deaths after 28 days plus the indirect effects of changes of stringency in longer lags captured through the lagged log deaths term.

Considering the asymptotic cumulative effects with k→∞, the total reduction in the log of daily deaths would be 0·6 times 1·85 (=1/(1- β_2)), or 1·16, which corresponds to a drop of 68.7% in the death rate per 100k.

For b), we rely on the mental health equations presented in this manuscript:

$$\text{Mental health} = \gamma_1 \text{stringency} + \gamma_2 \text{deaths} + \lambda Z + e_{it}$$

where mental health represents measures of psychological distress or life evaluations, and Z is a matrix of covariates.

According to Table 1, for psychological distress $\gamma_1 = 0·0827$ and $\gamma_2 = 0·0475$ and for life evaluations $\gamma_1 = 0·136$ and $\gamma_2 = 0·0735$.

Given the level of deaths at the moment of stringency change (D), the final estimate of interest - the indirect effect of stringency on mental health - is $I = D(1-e^{Sk})*\beta_2$. Finally, we estimate the total effect of stringency on mental health as the sum of the direct and indirect effects ($\beta_1 + I$).

As Hale´s et al (2021) model and the mental health equations use different functional forms of deaths,[11] it is not possible to estimate one general indirect effect, since its magnitude is conditional to the current level of deaths. Thus, we estimated the magnitude of the indirect and total effects for different scenarios (median, mean and 90th percentile of deaths of countries in our sample, as well as for the seven mitigator countries with the highest peaks of pandemic intensity).

Table S37 shows the results. We estimate indirect effects at 28 days and 168 days (6 cycles of 28 days) after a change from null to maximum stringency. Even after 168 days, the indirect effect is small compared to the direct effect for, median, mean and 90th percentile of deaths (the indirect effect is not more than 20% of the direct effect for the 90th percentile). The indirect effects were sizable for psychological distress for cases like the UK (45% of the direct effect) and Sweden (63% of the direct effect), and for life evaluations (42% for UK and 55% for Sweden).

These indirect effects would still be relatively small if deaths were reduced to zero in the case of mean, median and 90th percentile, with indirect effects smaller than 20% of the direct effect and the indirect effect would reach from 63% to 73% of the direct effect for the UK and Sweden. This happens because the reduction in the number of daily deaths needed for the indirect effect to offset the direct effect is γ_1 / γ_2, which is 1·74 for psychological distress and 1·85 for life evaluations, while the maximum value observed is 1·87 for the UK. In other words, the drop in deaths necessary to produce equivalent indirect and direct effects cannot occur within the observed levels of pandemic intensity so far.

Table 37– Sensitivity analysis of indirect associations estimates of stringency on mental health through reduction in deaths

| | | Levels of death per 100k | | | | | | | | |
| | | Summary statistics of sample countries | | | Maximum of sample country values | | | | | |
	Period of sustained stringency	Mean	Median	90th percentile	France	Spain	Germany	Italy	Sweden	United Kingdom
		0.140	*0.030*	*0.490*	*1.027*	*1.030*	*1.075*	*1.244*	*1.329*	*1.857*
Level of deaths per 100k after a change from 0 to maximum Stringency index	28 days	0.081	0.017	0.285	0.598	0.600	0.625	0.724	0.773	1.081
	168 days	0.045	0.010	0.158	0.332	0.333	0.347	0.402	0.422	0.591
Psychological distress										
Indirect effect of stringency	28 days	-0.0028	-0.0006	-0.0097	-0.0204	-0.0205	-0.0213	-0.0247	-0.0264	-0.0369
	168 days	-0.0045	-0.0010	-0.0158	-0.0330	-0.0331	-0.0346	-0.0400	-0.0430	-0.0602
Direct effect of stringency		0.0827	0.0827	0.0827	0.0827	0.0827	0.0827	0.0827	0.0827	0.0827
Total effect of stringency	28 days	0.0799	0.0821	0.0730	0.0623	0.0622	0.0614	0.0580	0.0563	0.0458
	168 days	0.0782	0.0817	0.0669	0.0497	0.0496	0.0481	0.0427	0.0397	0.0225
Life evaluations										
Indirect effect of stringency	28 days	0.0043	0.0009	0.0151	0.0316	0.0316	0.0330	0.0382	0.0408	0.0570
	168 days	0.0070	0.0015	0.0244	0.0511	0.0513	0.0535	0.0619	0.0666	0.0931
Direct effect of stringency		-0.1360	-0.1360	-0.1360	-0.1360	-0.1360	-0.1360	-0.1360	-0.1360	-0.1360
Total effect of stringency	28 days	-0.1317	-0.1351	-0.1209	-0.1044	-0.1044	-0.1030	-0.0978	-0.0952	-0.0790
	168 days	-0.1290	-0.1345	-0.1116	-0.0849	-0.0847	-0.0825	-0.0741	-0.0694	-0.0429

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